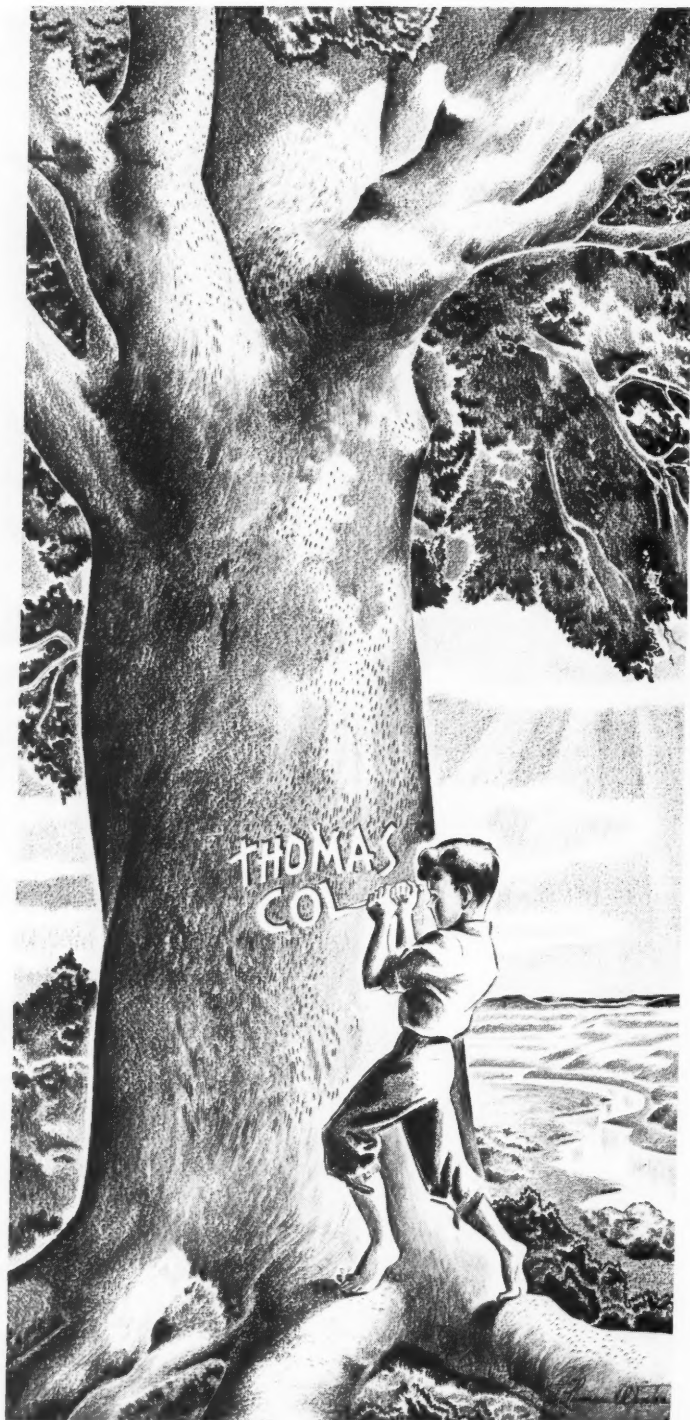


# The Inland Printer

SEPTEMBER  
1939



# trends



Carve a name for yourself  
on

## CHAMPION PAPER

MORE lasting even than names cut deep in trunks of trees, are favorable impressions that advertising makes in minds of men. Where once he left his name for those who chanced to pass, today a man multiplies his message countless times and sends it out to fight for him.

Champion has the largest line of printing papers anywhere available. Constant growth over forty-five years is evidence of Champion's skill. Whatever your customers require, you can give them the most for their advertising dollar and bring repeat business to yourself, by using Champion paper, the foundation for good printing.



### THE CHAMPION PAPER AND FIBRE CO., Hamilton, Ohio

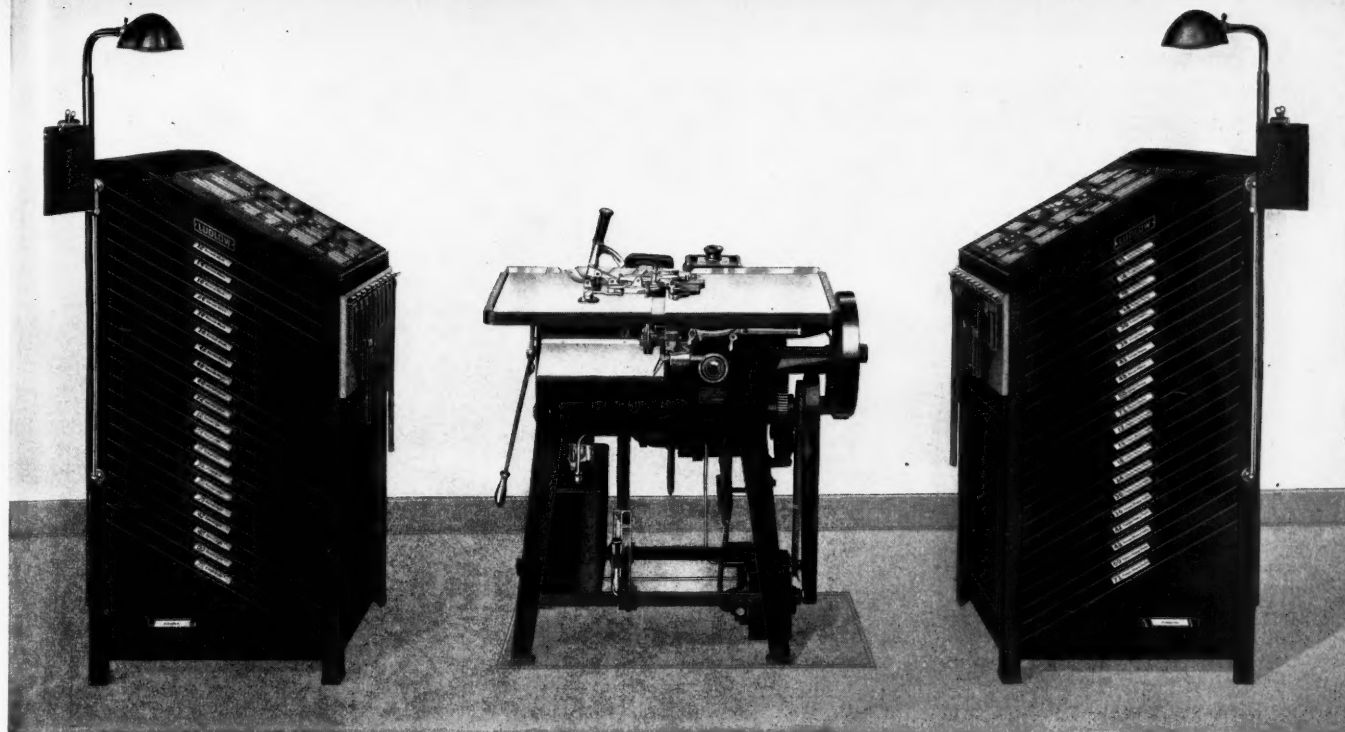
MILLS AT HAMILTON, OHIO . . . CANTON, N. C. . . . HOUSTON, TEXAS

*Manufacturers of Advertisers' and Publishers' Coated and Uncoated Papers, Cardboards, Bonds, Envelope and Tablet Writing . . . Over 1,500,000 Pounds a Day*

DISTRICT SALES OFFICES

NEW YORK • CHICAGO • PHILADELPHIA • CLEVELAND • BOSTON • ST. LOUIS • CINCINNATI





# See the Ludlow at the show



- See it in operation, demonstrating the simplicity and ease of Ludlow composition and proving every claim made for it.
- See the amazing speed of matrix gathering.
- See how rapidly and easily spacing and justifying are accomplished.
- See how spacing "tight to lift" is eliminated.
- See how quickly a change of size or face is made.
- See the efficiency of Ludlow all-slug make-up.
- See the simplicity and speed of Ludlow ruleform composition and make-up.
- See how the quality of Ludlow faces reduces makeready.
- See how little space is required for a complete Ludlow installation.
- See how and why the Ludlow actually cuts operating costs and increases profits.
- See specimens of the distinguished Ludlow modern and traditional typefaces which will build business for you.

Seeing is believing, and you'll find it well worth while to see all these advantages demonstrated at the Ludlow exhibit in Booth 104.

**LUDLOW TYPOGRAPH COMPANY**  
**2032 Clybourn Avenue • • Chicago, Illinois**

Set in Ludlow Radiant Heavy and Radiant Medium

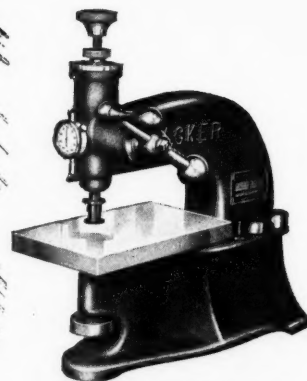
# Plan for More Profit

The use of inexpensive equipment to save the time of expensive machinery shows thoughtful planning toward ultimate profit.

The No. 320G Vandercook Hand Operated Proof Press gives cylinder press printing conditions. It produces proofs that the customer can OK for all but the finest makeready detail. No. 320G Vandercook can be used for preliminary makeready, picking out every possible form fault before it is sent to the press room or foundry.

Hacker Premakeready Equipment is used in checking plates for inaccuracies and correcting them before they go into a form—eliminating the dangerous practice of pulling cuts after forms have been checked and approved.

Write for information on latest Vandercook Proof Presses and Hacker Premakeready Equipment. Your request does not obligate you.



No. 9 Hacker Plate Gauge



No. 4 Hacker Block Leveller

## VANDERCOOK & SONS

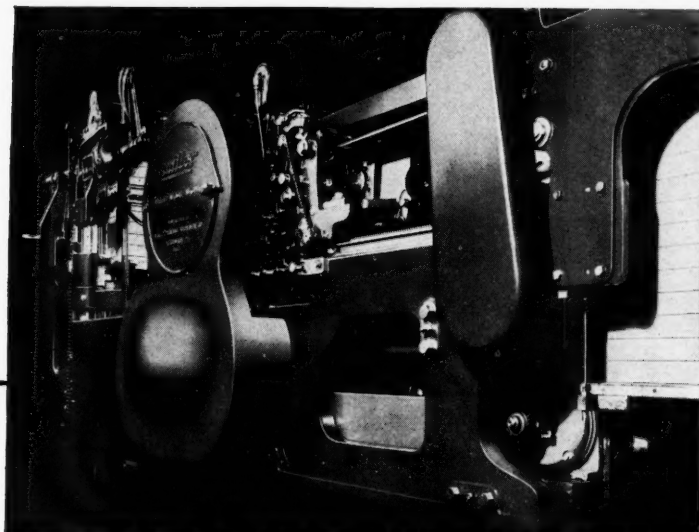
Main Office and Factory  
904 N. Kilpatrick Ave., Chicago  
Canada: SEARS LIMITED, Toronto, Montreal, Winnipeg, Vancouver

Eastern Branch  
214 E. 45th St., New York City

No. 320G Vandercook Hand Operated Proof Press with Automatic Sheet Delivery

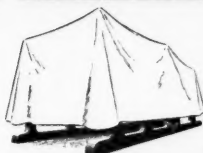


Published monthly by The Inland Printer Company, 205 West Wacker Drive, Chicago, Illinois. Subscription rate \$4.00 a year; 40c a copy. Canadian \$4.50 a year; foreign subscription \$5.00 a year. Entered as second-class matter, June 25, 1885, at the postoffice at Chicago, Illinois, under Act of March 3, 1879.



*Miller Automatics—distinguished in design and popularity as America's foremost cylinder presses.*

## LOOKING AHEAD IS TO-DAY'S PROBLEM



**E**VEN to-day, it is a startling reality to many that those idle, sheeted presses will profit no more. Yet, it is normal and timely that machines built to fit production standards of ten or more years ago, should be outclassed to-day. Their continued use must result in ever-deepening loss to their owners and operators.

\* \* \*

At the 1939 Graphic Arts Exposition, printers will find encouraging support in Miller Automatics—a new bulwark in the form of machines which are more than just printing presses. These Miller Automatics are business-building machines with unique factors of quality and efficiency to meet a new era. To use them, no printer need abandon his craft nor is excessive investment necessary.

\* \* \*

The industry is thriving. Three times as many cylinder presses were built in 1937 as in 1933. Printing and publishing increased 44% in the same years. During this time, Miller Automatics planned for profits, grew even more rapidly in numbers and efficiency, greatly outnumbering other cylinders of similar size.

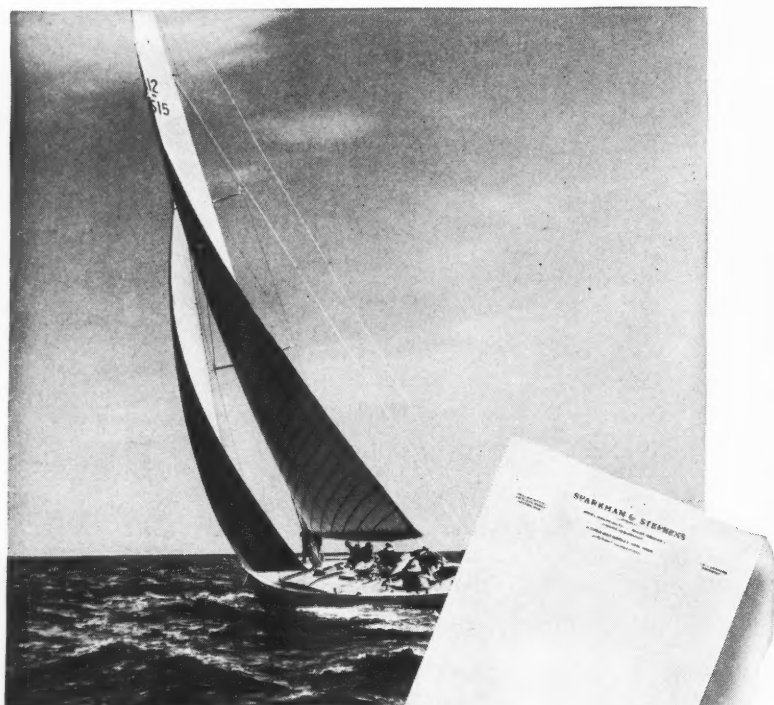
\* \* \*

It is a promise that to-day's Miller Automatics will bring a still greater measure of value to America's pressrooms. You are cordially invited to inspect them at the Miller exhibit, Graphic Arts Exposition, New York, September 25 to October 7.



**MILLER PRINTING MACHINERY CO., PITTSBURGH, PA.**

*Should you be unable to attend the Graphic Arts Exposition, information concerning Miller equipment shown there, will gladly be given in detail at or after that time—on request. No obligation.*



"VIM"... New Twelve Metre Yacht Designed for Harold Vanderbilt by Sparkman & Stephens, Inc.

## is YOUR LETTERHEAD a consistent winner?

When Sparkman & Stephens design a yacht, they design a winner. Harold Vanderbilt's "VIM," just returning from a successful season in English waters... "EDLU II," winner of the Cape May race... "GOOSE," this year's Prince of Wales Trophy winner.

And when Sparkman & Stephens designed a letterhead, they chose another winner... STRATHMORE BOND! Chose it because it expresses their prestige and leadership in the yachting world.

You, too, want your letterhead to be a consistent business winner... and Strathmore Paper can make it so for only a fractional difference in cost. When you write a letter on STRATHMORE BOND, it costs less than 1% more than the same letter written on the cheapest paper you might buy. And on STRATHMORE PARCHMENT, as fine a paper as can be made, it costs only 2.9% more. Such extra effectiveness, for so little cost difference, is sound business economy.

\* \* \*

THE STRATHMORE BUSINESS PERSONALITY CHECK LIST shows all the ways in which a business is seen and judged by its public, gives all the *appearance factors* important to your business. Write on your business letterhead for this check list. Dept. I.P.7, STRATHMORE PAPER COMPANY, WEST SPRINGFIELD, MASSACHUSETTS.

# STRATHMORE

MAKERS  
OF FINE  
PAPERS

## STANDARDIZE ON STRATHMORE BOND

There's double value in STRATHMORE BOND... a quality paper at a moderate cost. That's extra value when you buy.

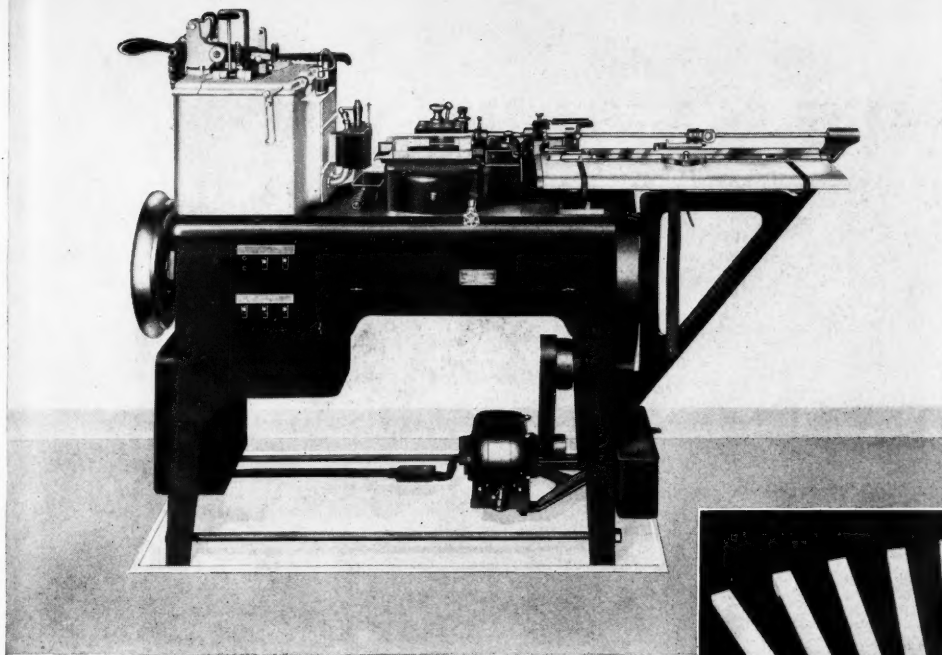
And Strathmore reputation and quality make for quick sales of really fine letterheads. That's extravaluethen you sell!

STRATHMORE BOND is easier to sell because of advertisements like this... advertisements that tell why a fine letterhead is true economy... feature leading business firms that use STRATHMORE BOND.

This series appears in:

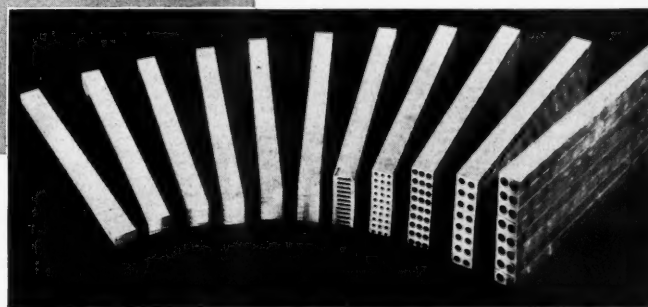
FORTUNE  
TIME  
BUSINESS WEEK  
NEWSWEEK  
ADVERTISING & SELLING  
PRINTERS' INK MONTHLY  
SALES MANAGEMENT  
TIDE





The Elrod lead, slug, rule and base caster produces an unlimited supply of strip material from 1-pt. to 36-pt. in thickness and in any desired height.

Elrod precision-cast strip material is free from brittle breaks and welds and stands up under severe stereotyping pressures.



# See the Elrod at the Show

- See how simple and easy it is to operate.
- See how simple it is in mechanism.
- See how this one machine produces strip material ranging in thickness from 1-pt. to 36-pt. in any desired height or length.
- See how the molten metal is formed under pressure into a continuous strip as it passes through the water-cooled mold.
- See how and why Elrod-cast strip is so solid and free from brittle breaks and welds.
- See why Elrod base stands up under the most severe mat rolling pressures.
- See how Elrod cuts down composing room costs by providing an abundant supply of leads, slugs, rules, and base at all times.
- See how the Elrod operates continuously, yet requires only the part-time attention of one man to replenish metal supply and remove stacked lengths of strip.
- See how little floor space is required by the remarkably efficient and versatile Elrod.
- See how and why the Elrod can do all these things for you—in your own plant—and save you money.

Seeing is believing, and you'll find it well worth while to see all these advantages demonstrated at the Elrod exhibit in Booth 104.

**LUDLOW TYPOGRAPH COMPANY**  
**2032 Clybourn Avenue • • Chicago, Illinois**

Set in Ludlow Radiant Heavy and Radiant Medium

LIKE THE CREATION OF A SCULPTOR'S MASTERPIECE....  
IT'S ALL IN KNOWING HOW!



DESIGNING  
AND BUILDING  
SPRAY EQUIPMENT FOR  
**OFFSET  
PREVENTION**  
IS AN ART, TOO, AND  
**DEVILBISS  
KNOWS  
HOW!**

● Everyone knows that any kind of masterpiece must be structurally perfect—and that it takes years of study and work to achieve such perfection.

Spraying equipment for printing and offset presses is no exception! In this field, the DeVilbiss Spray can rightfully be called a masterpiece. More than fifty years of experience have gone into its making, and the finished product is a perfectly constructed instrument that will give you long, dependable service.

Before you buy any spraying equipment, consider how long it will last, and the time and effort required to install and operate it. Send for full information about the fifteen portable and stationary DeVilbiss outfits designed to meet your exact pressroom needs.

Visit the DeVilbiss Exhibit at the National Graphic Arts Exposition



Notice how few and simple the adjustments on the DeVilbiss Spray Gun!

Equipment licensed for use under U. S. Patent No. 2,078,790

**DEVILBISS**

**SPRAY SYSTEMS**

THE DEVILBISS COMPANY • TOLEDO, OHIO • U.S.A.

# *Coming Closer*



*Letterpress Equipment*

*. . . in 36 x 48 size*

*... possessing new factors of  
high efficiency aimed directly  
at the heart of the printers'  
sales problem.*

*... Designed and made by the  
world's largest exclusive manu-  
facturer of cylinder presses.*

FINAL ANNOUNCEMENT • NEXT MONTH

## More Profits for You — with Christensen Equipment

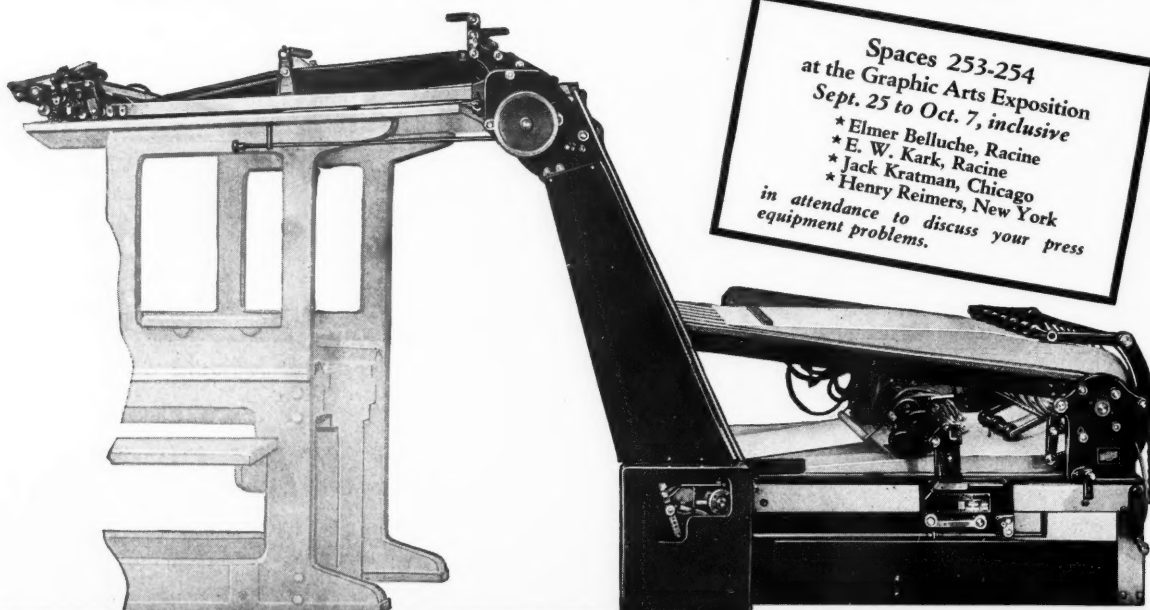
*For a profitable visit at the Show—see the new Christensen Continuous Suction Stream Feeder in action*

Are you interested in a Feeder that offers these advantages . . . to help you get a paying share of today's business . . . and make your customers boosters? . . .

1. A feeder that doesn't limit the speed at which your presses operate, but feeds sheets in time with your fastest speeds?
2. A feeder that improves register by presenting sheets to front guides of press at a sheet speed of but 10 to 15 inches per cycle, or impression?
3. A feeder that feeds sheets in underlapped relation in slow motion, and requires no top rods, mechanical slow-downs, or other sheet-controlling devices . . . thus reducing "down-time" on press-and-feeder unit, and increasing volume of production?

4. A feeder that is unusually accessible, because loading board is at bench height with entire separating unit on the floor (no platforms necessary, no slow, hazardous climbing to load or to make settings and adjustments)?
5. A feeder that automatically makes practically all adjustments, for varying conditions of stock that must be separated and fed?
6. A feeder that carries sheets vertically from separating unit to feed board, removing loose scraps of paper and most of paper dust ordinarily carried into press . . . thus reducing chances of battered plates and packing, and, in turn, additional wash-ups?
7. A feeder that combines the advantages of the Pile Suction and Continuous Type feeders?

★ Of course you're interested in this most advanced development in feeder design, just as you should be in any equipment that helps you make more money. So be sure to inspect the new Christensen Continuous Suction Stream Feeder (shown for the first time) in actual operation at the Show. Also see the other modern Christensen equipment. If you are not planning to be in New York, write today for free bulletin on the new Christensen Continuous Suction Stream Feeder.



Spaces 253-254  
at the Graphic Arts Exposition  
Sept. 25 to Oct. 7, inclusive  
\* Elmer Belluche, Racine  
\* E. W. Kark, Racine  
\* Jack Kratman, Chicago  
\* Henry Reimers, New York  
in attendance to discuss your press equipment problems.

**THE CHRISTENSEN MACHINE COMPANY**  
100 FOURTH STREET, RACINE, WISCONSIN

BRANCH OFFICES AND DISTRIBUTORS  
IN UNITED STATES AND CANADA





# FOR *Strength* SPECIFY

● Wytek Bond is brawny. It withstands the abuse of modern business. Hence, it is widely preferred for business forms, catalog pages and low-cost letterheads. Try it. You, too, will find it both tough and thrifty. For Samples Write.



## WYTEK SALES COMPANY

MAIN OFFICE - - - DAYTON, OHIO

Sales agent for all Wytek printing papers, including:  
Wytek Bond, Wytek Ledger, Wytek Offset, Wytek Cover

F A M O U S F O R S T R E N G T H

# ONE MACHINE YOU'LL NOT FIND AT THE GRAPHIC ARTS EXPOSITION

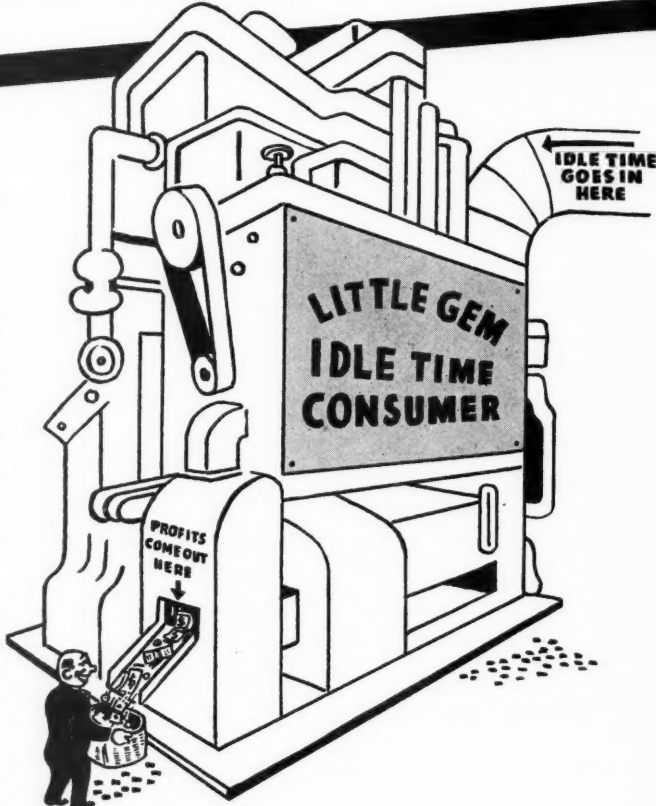
At the Graphic Arts Exposition at New York next month you will find the very latest developments in printing machinery and equipment—some of which you will want, no doubt, to add to your plant.

But neither at this exposition, nor anywhere, will you be able to buy and install equipment to turn your *idle composing room time* into profits. The only way to do that, is to reduce the composing room personnel to the minimum required for efficient operation—and rely on the trade composition plant for service.

For the very nature of our business demands that our equipment must be modern to the minute. In our shops now, you will find much of the new equipment which will be shown for the first time publicly at the exposition.

There's a trade composition plant, a member of this association, as near as your telephone. Why not give it an opportunity to serve you?

**INTERNATIONAL TRADE COMPOSITION ASSOCIATION**  
Executive Offices at 629 Chestnut Street, Philadelphia, Pennsylvania



## THE LEADING TRADE COMPOSITION PLANTS, LISTED GEOGRAPHICALLY:

**ARIZONA**  
Trade Composition Co., Phoenix

**AUSTRALIA**  
Craftsmen Type-setters Pty. Sydney  
Smith & Miles, Ltd., Sydney

**CALIFORNIA**  
Ted Lige, Linotyping, Oakland  
MacKenzie & Harris, Inc., San Francisco  
Typographic Service Co., Los Angeles

**CANADA**  
Benson Typsetting Company, Toronto  
Booth Typsetting Co., Toronto  
George S. Brown, Toronto  
Casper & Boney, Ltd., Toronto  
Corliss & Wimpenny, Ltd., Toronto  
Fred F. Kaler, Ltd., Montreal  
Hamilton Typsetting Co., Ltd., Hamilton  
Howarth & Smith, Toronto  
Linotype Composing Co., Toronto  
Line Typsetting Company, Toronto  
London Typsetting Co., London  
Mason-Lin Typsetting Co., Ltd., Toronto  
O. J. Ouellette Co., Montreal  
John W. Shields, Bridgeport  
Service Linotyping Co., Toronto  
Typographic Service, Toronto

**CONNECTICUT**  
H. C. Martin, Waterbury  
Neustadter Comp. Co., Union City  
New Britain Typsetting Co., New Britain  
Planck Typographic Service, New Haven  
K. D. Plumb Monotype Comp., Hartford  
H. W. Rafferty, New London  
John W. Shields, Bridgeport  
Southern New England Typographic Service, Inc., New Haven

**DISTRICT OF COLUMBIA**  
J. C. Harlowe, Washington  
Maxwell L. Jones, Washington  
George W. Nave, Washington

**ILLINOIS**  
American Typsetting Corp., Chicago  
Empire Typsetting Co., Chicago  
Ernstson Typsetting Co., Chicago  
Lohde-Caswell Company, Peoria  
Thomson Monase & Son, Inc., Chicago  
M & L Typsetting & Electro, Co., Chicago

**ILLINOIS—continued**  
O K Typsetting Co., Chicago  
Quality Typsetting Co., Chicago

**INDIANA**  
Fred B. Alexander, Indianapolis  
Lafayette Typsetting Co., Lafayette  
Spaulding Typsetting Co., Indianapolis  
Thomas & Evans, Inc., Indianapolis  
Typographic Service Co., Indianapolis

**IOWA**  
Jacobson Linotyping Co., Des Moines  
H. C. Lilliquist, Davenport  
Linotype Composition Co., Davenport  
Plymouth Typsetting Co., Sioux City

**KANSAS**  
Topeka Type Shop, Topeka

**KENTUCKY**  
Kentucky Linotyping Co., Louisville

**MAINE**  
Harmon C. Crocker, Portland

**MARYLAND**  
Baltimore Comp. Corp., Baltimore  
Duvall Co., Baltimore  
Guyon J. Kitzmiller, Baltimore  
Mills-Frith-Evans Co., Baltimore  
Monotype Composition Co., Baltimore

**MASSACHUSETTS**  
Gunn & Earl, Inc., Springfield  
Fred H. Lutz, Brockton  
Machine Composition Co., Boston  
Northampton Intertyping, Northampton  
Scott Linotyping Co., Boston  
Springfield Composition Co., Springfield  
Worcester Type Service, Inc., Worcester  
Cecil H. Wrightson, Inc., Boston

**MICHIGAN**  
Detroit Typsetting Co., Detroit

**MINNESOTA**  
Anderson & Foss, Minneapolis  
Dahl & Curry Type Co., Minneapolis  
Duragraph, Inc., Minneapolis  
Mono-Trade Company, Minneapolis  
Mortimer-Lovring, Minneapolis  
Perfection Type, Inc., St. Paul  
United Typsetting Co., Minneapolis  
Walkup Typsetting Co., Minneapolis

**NEBRASKA**  
Omaha Printers Supply Co., Omaha  
Clyde B. Tryon, Typewriter, Omaha

**NEW JERSEY**  
Raso Linotypers, Inc., Passaic  
Trade Typsetters, Inc., Newark

**NEW YORK CITY**  
Art Linotypers, Inc., New York City  
Baxter & Spencer, Inc., New York City  
Howard O. Bullard, Inc., New York City  
Commandary Brothers, Inc., New York City  
Composing Room, Inc., New York City  
Fred A. Crowell, Inc., New York City  
Thomas E. Derrin, New York City  
Fales Lin-Art Co., New York City  
Four Typsetting Service, New York City  
Ganer Linotype Craftsmen, New York City  
Samuel Hurst, New York City  
Kline Linotyping Co., New York City  
Oscar Leventhal, New York City  
Link & Coleman, Inc., New York City  
Charles D. O'Brien, New York City  
Standard Linotypers, New York City  
Nelson Stearns, Inc., New York City

**NEW YORK—STATE**  
Composition Service Co., Albany  
Dix Typsetting Co., Syracuse  
George Held Comp. Co., Albany  
Rochester Monotype Comp. Co., Inc., Rochester  
Superior Typsetting Company, Buffalo  
Ulrich Typsetting Co., Utica

**OHIO**  
Brinkman Typsetting Co., Cincinnati  
Cincinnati Typsetting Co., Cincinnati  
Cleveland Typsetting Co., Cleveland  
Cobb Typsetting Co., Cincinnati  
East End Comp. Co., Cleveland  
General Typsetters Co., Cincinnati  
Marlinton Typsetting Co., Cincinnati  
Quality Typsetting Co., Cincinnati  
Satter Linotypical Co., Cincinnati  
Skelly Typsetting Co., Cleveland  
Thomas & Carleton Type Co., Cleveland  
Yaeger Typsetting Co., Columbus

**OKLAHOMA**  
Orman & Young, Inc., Tulsa

**PENNSYLVANIA**  
Harold C. Bonekemper, Lansdale  
Franklin Composition Co., Philadelphia  
Liberty Composition Co., Philadelphia  
Main Line Linotyping Co., Wayne  
John C. Meyer & Son, Philadelphia  
Mason-Lin Typsetting Co., Pittsburgh  
National Typsetting Corp., Philadelphia  
Oakdale Composition Co., Philadelphia  
Pittsburgh Mono. Comp. Co., Pittsburgh  
Progressive Comp. Co., Philadelphia  
Rutledge Shaw & Weverill, Inc., Philadelphia  
Standard Composition Co., Philadelphia  
Frank W. Tondorf, Philadelphia  
Typcrafters, Inc., Philadelphia  
Weber Composition Co., Ferwood  
George W. Williams, Philadelphia

**RHODE ISLAND**  
Typsetting Service Co., Providence

**TENNESSEE**  
Intertype Comp. Co., Chattanooga

**TEXAS**  
Jaggers-Chiles-Storall, Inc., Dallas  
Albert F. Kilg Typsetting Co., Galveston

**UTAH**  
Superior Typsetting Co., Salt Lake City

**VIRGINIA**  
R. P. Martin, Inc., Norfolk

**WASHINGTON**  
Archie J. Little, Seattle  
Juneau City Typsetting Co., Seattle  
Spokane Typsetting Co., Spokane

**WISCONSIN**  
Dorsey, Inc., Milwaukee  
Hayward Typsetting Co., Milwaukee  
Hertling Typsetting Co., Milwaukee  
Independent Typsetting Co., Milwaukee  
Lawrence Typsetting Co., Milwaukee  
Milwaukee Typsetting Co., Milwaukee  
Thomas Typsetting Co., Milwaukee  
Trade Press Typsetters, Milwaukee  
Zahn Typsetting Co., Milwaukee



**THIS REALLY OUGHT  
TO BE AN**

*Orchid*

**• • It's for the man  
who sold the boss on  
the idea of using • •**

**HOWARD BOND**

**WATERMARKED**

**"THE NATION'S BUSINESS PAPER"**

*Envelopes to Match*

**You'll like Howard Mimeograph and Howard Ledger, too.**

**THE HOWARD PAPER COMPANY, URBANA, OHIO**

Send me ☐ Howard Bond Portfolio ☐ Howard Ledger Portfolio

☐ Howard Mimeograph Portfolio

Name \_\_\_\_\_ Position \_\_\_\_\_

Firm \_\_\_\_\_

Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_

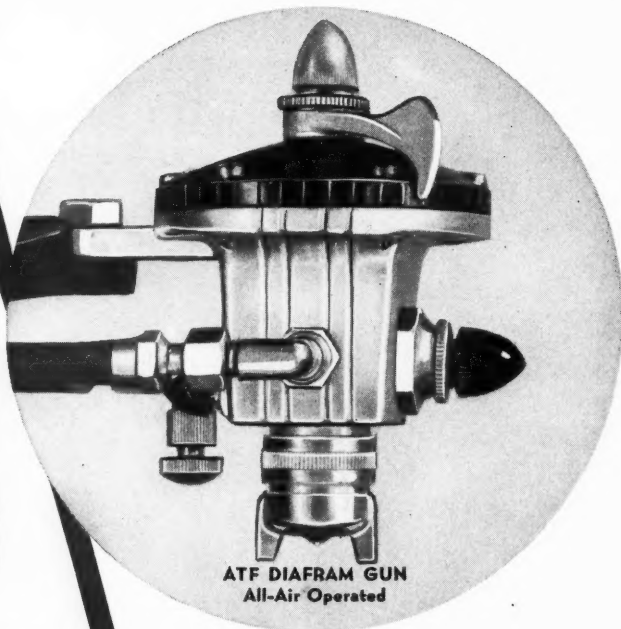
Please attach to your business stationery

IP-9-39

**"THE WORLD'S WHITEST BOND PAPER"**

*Please Mention The INLAND PRINTER When Writing to Advertisers*

# A NEW ATF GUN



ATF DIAFRAM GUN  
All-Air Operated

*at a lower price!*

*F*our years ago ATF Non-Offset Guns gave printers a new chance at more business and more profits by creating savings in production. Today, ATF has perfected an all-air operated Gun that offers you even greater savings in production and a better chance for more business and more profits . . . at a lower price than ever before!

● The sole reason for ATF's switch from the highly satisfactory solenoid operation to all-air operation is that the new ATF Diafram Gun has no expensive electrical parts and connections . . . therefore costs

less and is easier to operate. It's construction is simpler and less expensive to make . . . resulting in savings that are passed along to you in reduced prices.

● All the features that have made ATF Guns the leading non-offset spray equipment have been retained . . . with more added to give printers a better Gun for less money. Ask your ATF Salesman for details about ATF's all-air operated Diafram Gun . . . or write your nearest ATF Branch office. See it at the National Graphic Arts Exposition in New York!

## AMERICAN TYPE FOUNDERS

200 ELMORA AVENUE • ELIZABETH, NEW JERSEY  
BRANCHES AND SELLING AGENTS IN PRINCIPAL CITIES

Types used: Kaufmann Bold, Headline Gothic and Bernhard Gothic Heavy



# Now — and until further notice 40% Discount

ROBERTS Model 27 <sup>5</sup> Wheel Model 28 <sup>6</sup> Wheel

**ROBERTS PRESENTS MODELS 27 AND 28**

• GOOD OLD RELIABLES for over two score years  
As its contribution to the printing trade

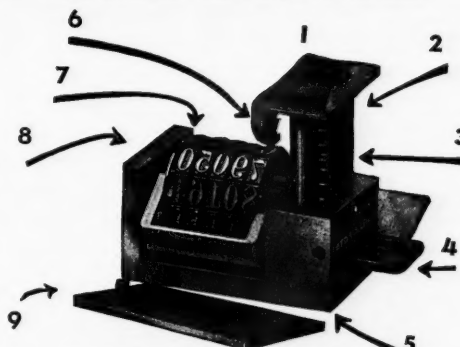


Each has DIRECTLY  
GEARED Plunger and Swing.

Developed and designed to  
run on ALL Type High Presses.

## 9 Features Exclusive With Roberts—

- 1 Low plunger increases speed, insures safety, improves quality.
- 2 Large mainspring—greater flexibility and longer service.
- 3 Welded steel plunger guide pins assure rigidity.
- 4 Steel staple plunger release. Plunger may be removed for cleaning in an instant.
- 5 Strong, bronze bearing metal case. Constructed to eliminate buckling in use. Ideal bearings for steel plunger guide pins.
- 6 DIRECT DRIVE—CORRECT MECHANICALLY. NO INTERMEDIATE PARTS. Positive action, consistent service, longer life.
- 7 Patented wire spring "straddling" unit pawl. Double spring insures long consistent service.
- 8 Improved drop cipher, with large bearing surface—always type-high.
- 9 Removable steel side plates, snap off and on—no bothersome screws.



UNCONDITIONALLY GUARANTEED

## ORDER NOW at these Remarkable Savings

N<sup>o</sup> 12345 Model 27—5 Wheels \$12. 40% off is \$4.80—or \$7.20 net  
Roman Model 28—6 Wheels \$14. 40% off is \$5.60—or \$8.40 net

N<sup>o</sup> 54321 SPECIFY YOUR CHOICE of • Forward or Backward  
Gothic • Roman or Gothic • Solid or Removable No. Slide

**THE Roberts NUMBERING MACHINE CO.**

LET ROBERTS SAVE YOU MONEY ALSO ON  
YOUR SPECIAL NUMBERING EQUIPMENT

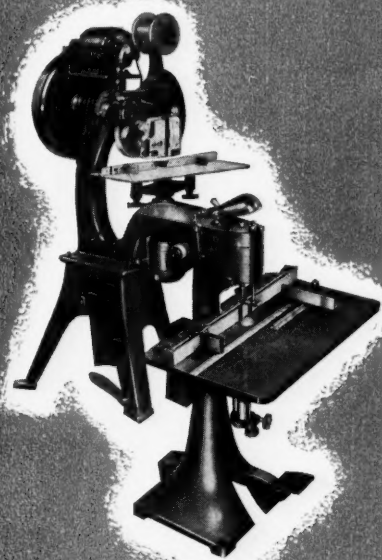
696 Jamaica Avenue  
BROOKLYN, NEW YORK

# NEW YORK BECKONS

SEPTEMBER 25th TO OCTOBER 7th



# M EET YOUR OLD FRIENDS AT THE SEYBOLD SIGN!



● When you walk into Booth 135 at the Graphic Arts Exposition in New York, September 25th to October 7th, you'll see a lot of old friends—friends that have been helping you for years to turn out a better product at lower cost.

Seybold Cutters, Morrison Stitchers, Wright Drills—all will be there in their newest dress to greet you. Radical departures from basic design principles are still conspicuous by their

absence—because Seybold years ago worked out this problem—then added the reserve strength that gives long life and lasting accuracy with low maintenance costs. But refinements have been added where experience proved they would benefit you.

So drop in and see these old friends. To say "a cordial welcome awaits you" is superfluous—our happy relations with the Graphic Arts for fifty-nine years makes it so.

## SEYBOLD

HARRIS-SEYBOLD-POTTER COMPANY • Dayton, Ohio

### SEYBOLD SALES AND SERVICE:

NEW YORK CITY: E. P. Lawson Co., Incorporated, 426-438 W. 33rd Street

CHICAGO, ILL.: Chas. N. Stevens Co., Inc., 110-116 West Harrison Street

ATLANTA, GA.: Harris-Seybold-Potter Service Corp., 120 Spring St., N. W.

DAYTON, OHIO: Seybold Division Factory, Harris-Seybold-Potter Company

LONDON, ENGLAND: Smyth-Horne, Limited

LATIN AMERICA AND WEST INDIES: National Paper & Type Company, Incorporated

SAN FRANCISCO, CAL., LOS ANGELES, CAL., SEATTLE, WASH.: Harry W. Brintnall Co.

TORONTO, MONTREAL: Harris-Seybold-Potter (Canada) Limited

PAPER CUTTERS • KNIFE GRINDERS • DRILLING MACHINES • WIRE STITCHERS

Please Mention The INLAND PRINTER When Writing to Advertisers



## WHO ARE THE COUNTRY'S

## Leading Printers?

Certificates of Merit have been awarded the Printers who produced these attractive Covers during the first half of Holyoke Card & Paper Company's BETTER COVER DESIGN and PRINTING CONTEST.

The contest closes December 15th, 1939, and is open to every Printer. Entries may be submitted in three divisions—Catalog, Booklet, and Miscellaneous—and there are three engraved Silver Shields to be awarded in each division, and an engraved Gold Shield as a Grand Award to the best entry submitted, regardless of division.

### Get Complete Details From Your Nearest Holyoke Card & Paper Distributor Salesman!

Don't overlook this opportunity to secure nation-wide publicity and recognition of your work! You have 40 chances to win a valuable Award, which you can display in your office or showroom as evidence of your ability to create outstanding Cover designs and printing! Your nearest Holyoke Card & Paper Company Distributor Salesman will be glad to supply you with complete information, or you can write direct to Holyoke Card & Paper Company, Springfield, Massachusetts.



### Certificate of Merit Winners, as of June 30th:

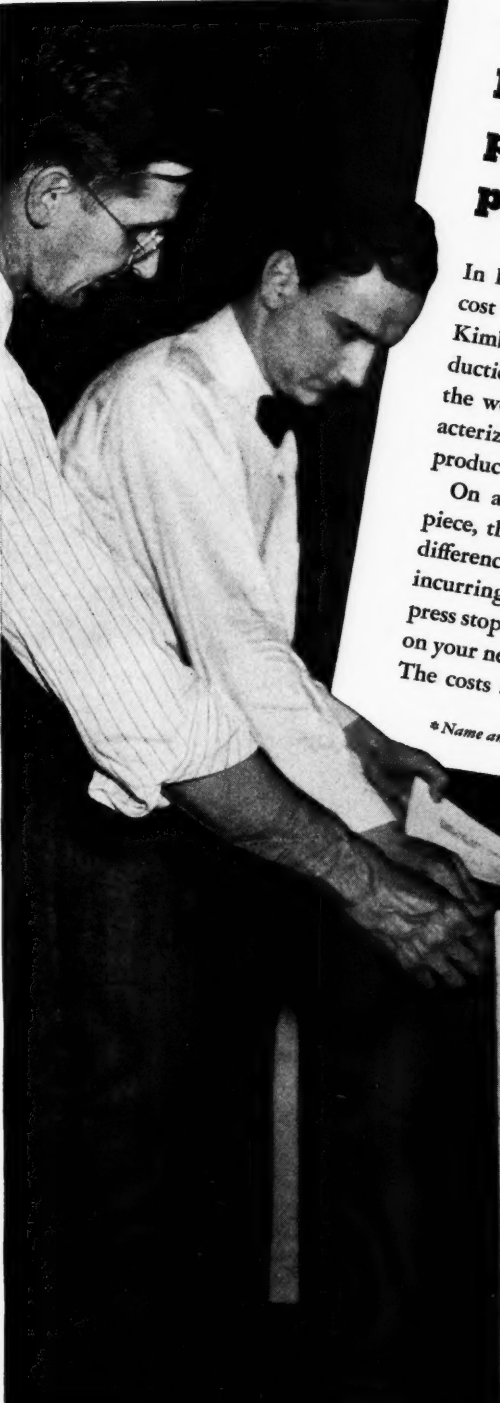
Chic Press, Monticello, N. Y.; Garment Fashion Publishing Co., New York, N. Y.; Roberts Printing Co., Toledo, Ohio; Jaggars-Chiles-Stovall, Dallas, Texas; Foxon Co., Providence, R. I.; Joseph Celuh, Minneapolis, Minn.; Reese Press, Baltimore, Md.; Royal Press, New York, N. Y.; Geo. P. Schlicher & Son, Allentown, Pa.; Strobbridge Litho Co., Cincinnati, Ohio; Wilgo Co., New York, N. Y.; New York TIMES, New York, N. Y.; E. A. Johnson Co., Providence, R. I.; Helms Baking Co., Culver City, Cal.; and Tiffany Printing Co., Lakewood, R. I.

**HOLYOKE CARD & PAPER COMPANY'S**

**BETTER COVER**

**DESIGN AND PRINTING AWARDS**





**"... the uniformity of  
Kimberly-Clark papers  
permits us to show real  
press production..."**

In hundreds of printing plants the country over, the cost of producing fine printing is being cut by using Kimberly-Clark papers whenever possible. As the production manager of one of the biggest color shops in the world points out\*... "the uniformity which characterizes Kimberly-Clark papers permits unusual press production."

On any catalogue, magazine, broadside or mailing piece, that one factor of *uniformity* can well make the difference between a job which goes through without incurring extra costs... or one that's punctuated with press stops, ink troubles and spoilage. So why don't you, on your next job, make a test run on Kleeffect or Hyfect. The costs and results will speak for themselves.

\*Name and statement on file.

**KEEP  
OFF  
WET  
STOCK**

**KIMBERLY-CLARK CORP.** (Est. 1872) NEENAH, WISCONSIN • CHICAGO, 8 South Michigan Ave.  
NEW YORK, 122 West 42nd St. • LOS ANGELES, 510 West Sixth St.

*Kleeffect*  
THE PERFECT PRINTING PAPER

UNIFORMITY IN  
OPACITY • INK AFFINITY  
NON-CURLING • PRINTABILITY  
STRENGTH • BASIS WEIGHT  
COLOR AND FINISH

*Hyfect*  
ALL-PURPOSE BOOK PAPER

Please Mention The INLAND PRINTER When Writing to Advertisers

# Printers Can Capitalize this National "Profits for Printers" Campaign

Should your printer make a profit?

"My bid is low - I'll take a loss"

"My bid is low - I'll make a profit"

EVERY buyer of printing wants a good price. But really shrewd buyers insist on something more. They insist that their printers make a *profit*. Strange? Not at all! Experienced printing buyers don't believe in fairy tales. They know a profitless order in the printing business is no more attractive or treated any better than a profitless order in their own business. So for their *own* protection...to make sure that good prices also bring good printing...they insist on knowing the "why" of any successful quotation.

There is only one way any printer can deliver both high quality and low price in the same order today...and still have a reasonable profit left in the job. That is with modern high speed presses. All of the costs in printing like paper, ink, wage scales, etc., are normally the same for whoever gets the job. The only variables where real savings can be made without cutting into quality or the printer's just and necessary profit are the time needed for making presses ready for printing and press running time. And these are the two cost items which modern high speed Miehle Presses cut drastically.

When your printer says "I'll print it on a Miehle" he's guaranteeing good printing at a good price—with a fair profit for himself which is good business for both buyer and seller.

MIEHLE PRINTING PRESS & MFG. CO.  
World's Largest Builder of Printing Presses  
14th Street and Damen Avenue, Chicago, Illinois

IT PAYS TO PRINT IT ON A **Miehle**

Shown above is the second advertisement in the Miehle National Advertising Campaign. It appears in Fortune Magazine for September 1939.

Beyond the fact that this is Miehle's advertising, it is also advertising for the printer... for the printer who is shrewd enough, wise

enough, quick enough to tie into it and make it his own. This is not ordinary promotional sop tossed out with an eye to its effect on the printer. It is a sane, sound, convincing and moving campaign that shows results for the printer who is also a good business man. Write if you want full details.

**MIEHLE PRINTING PRESS & MFG. CO.**  
World's Largest Builder of Printing Presses  
14th Street and Damen Avenue Chicago, Illinois



# What more CAN BE SAID ABOUT INK?

**JUST THIS:** When there were no printing ink manufacturers as you know them today, Huber specialized in the manufacture of dry colors for printers who mulled their own inks by hand.

That was in 1780.

Today, Huber still manufactures its own dry colors, carbon black, and other raw materials... controls every step in the production of its inks.

Huber has more than 30,000 active ink formulas

for commercial, publication, news, carton and bag printers. Whether you need a dependable stock ink, or a special ink made to your own individual requirements, call on Huber... find out for yourself what a difference more than a century and a half of experience, and rigid control of produc-

tion from the ground up, makes in the quality and performance of ink.

Write for this free Huber Stock Ink Specimen Book and name of Authorized Distributor near you.



## J. M. HUBER, INC.

New York, Chicago, St. Louis, Boston  
and Authorized Distributors in Principal Cities

VISIT US AT THE GRAPHIC ARTS EXPOSITION IN NEW YORK—EXHIBIT OF THE NATIONAL ASSOCIATION PRINTING INK MAKERS

Please Mention The INLAND PRINTER When Writing to Advertisers



# THIN *and* **STRONG**

Here is one of the very latest developments in lightweight papers. It is thin as a shadow, but strong! The fact that it is made on precision paper machines has resulted in a sheet that is exceptionally clean and smooth . . . a sheet that will lend itself to a wide variety of uses.

Patawite manifold is unwatermarked, unglazed, and is available in canary, goldenrod, pink, green, blue, and white.

# PATAWITE

REG. U.S. PAT. OFF.

## *9lb Manifold*

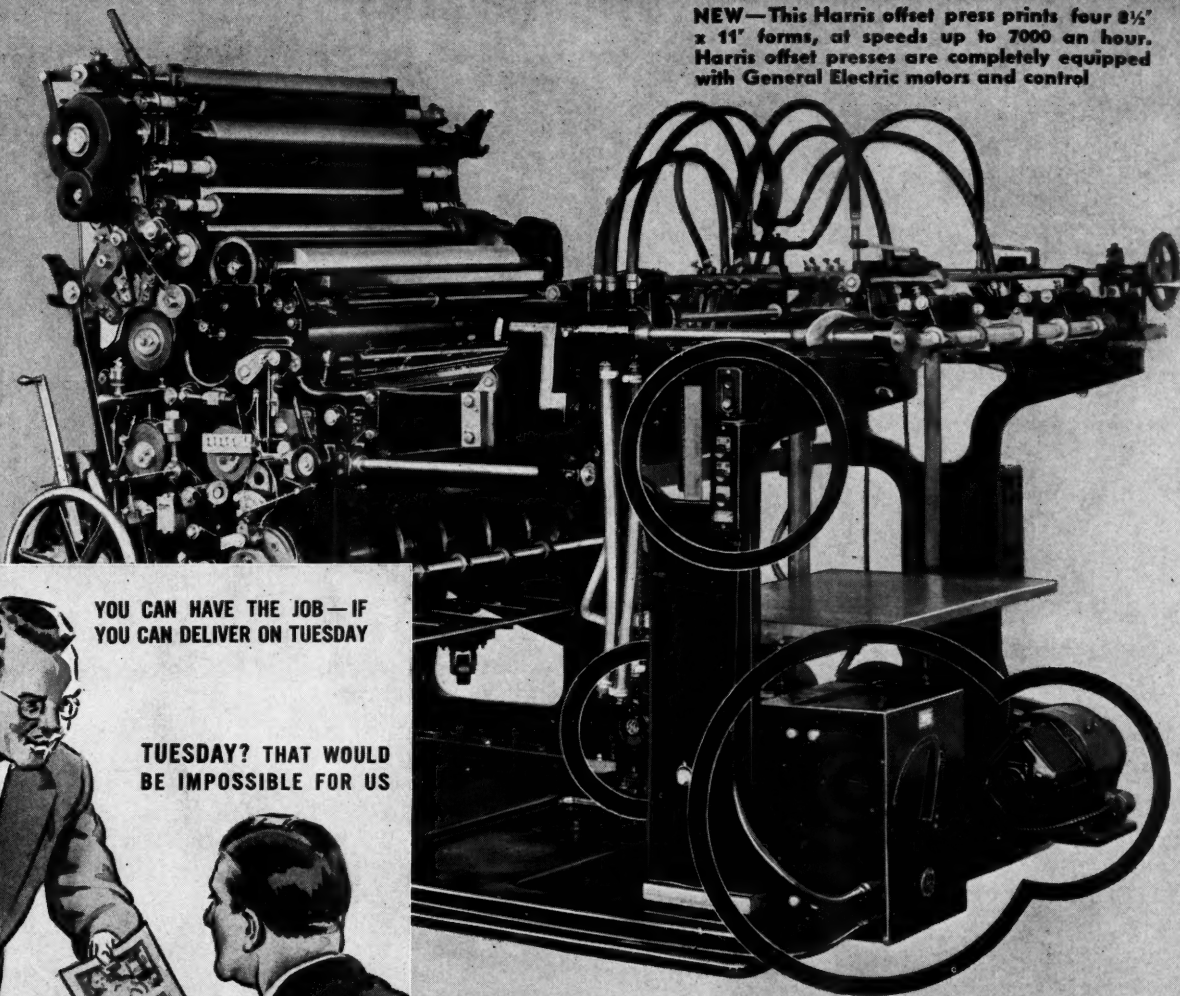
This versatile paper is recommended for Advertising Broadsides, Airmail Stationery, Departmental Forms, Carbon Copy Sheets, and many other purposes. Ask us for sample booklet and the name of the distributor in your territory.

**Paterson Parchment Paper Company**  
*Bristol, Pennsylvania*

WEST COAST PLANT: 340 BRYANT STREET, SAN FRANCISCO, CALIFORNIA  
BRANCH OFFICES: 120 BROADWAY, NEW YORK • III WEST WASHINGTON STREET, CHICAGO



**NEW**—This Harris offset press prints four 8½" x 11" forms, at speeds up to 7000 an hour. Harris offset presses are completely equipped with General Electric motors and control



**YOU CAN HAVE THE JOB—IF  
YOU CAN DELIVER ON TUESDAY**

**TUESDAY? THAT WOULD  
BE IMPOSSIBLE FOR US**

**AN ORDER LOST BECAUSE OLD  
EQUIPMENT WASN'T FAST ENOUGH**

**YOU GET ALL THESE ADVANTAGES  
WHEN YOU SPECIFY G-E**

- 1 A COMPLETE LINE OF ELECTRIC EQUIPMENT**—equipment to meet every printing need.
- 2 A STAFF OF G-E PRINTING-EQUIPMENT SPECIALISTS**—ready to help you plan your electrical installation.
- 3 TWENTY-FIVE G-E SERVICE SHOPS AND 28 G-E WAREHOUSES**—conveniently located to give you prompt, expert service on ALL your electric equipment.
- 4 G-E UNDIVIDED RESPONSIBILITY**—responsibility for the proper co-ordination and successful operation of the entire electrical installation.

## **HOW New Equipment Can Help You Get New Business**

**C**OMPETITION today demands printing equipment that can turn out work faster than ever before—work that is accurately and cleanly done. It demands flexibility, too—flexibility that enables printers to handle onionskin or blotting, low speeds or high speeds, line cuts or halftones—all on the same press.

Yet many printers continue to use presses and equipment that can't meet these present-day requirements. Such equipment is out-of-date—not because of its age, but because of its outmoded design. It can't print with the speed, accuracy, and flexibility of modern units. It makes profitable competition against new, improved equipment difficult.

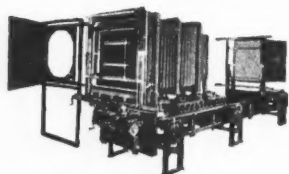
### **Replace Profit-cutting Equipment**

With new equipment—such as, for example, the Harris offset press illustrated above—you can meet today's competition at a profit.

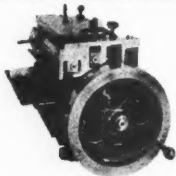
Investigate today the greater speed, accuracy, and flexibility of modern pressroom equipment. Consider, too, the many advantages you get when you specify General Electric motors and control. General Electric, Schenectady, N. Y.

**GENERAL  ELECTRIC**

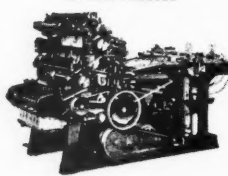
STEP AND REPEAT CAMERAS



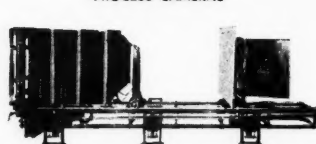
LABORATORY COATING MACHINES



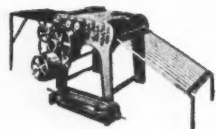
OFFSET PRESSES



PROCESS CAMERAS



PRESS PLATE WHIRLERS



FLAT TIN BRONZING MACHINES



LICENSE TAG COATING MACHINES



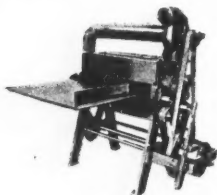
LITHOGRAPHIC HAND PRESSES



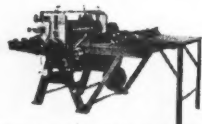
OFFSET COLOR PROVING PRESSES



VACUUM FRAMES



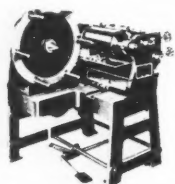
METAL DUSTING MACHINES



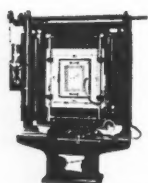
"STREAMLINE" SPOT COATING MACHINES



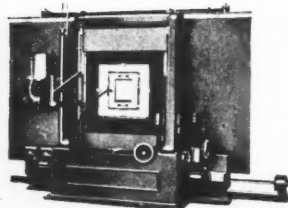
SUCTION ENLARGING BACK FOR FILM OR PAPER NEGATIVES



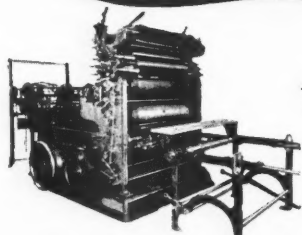
COLLAPSIBLE TUBE COATING MACHINES



JUNIOR PHOTO COMPOSING MACHINES



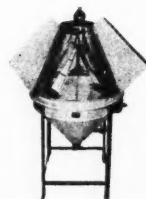
PRECISION PHOTO COMPOSING MACHINES



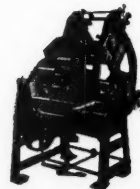
"STREAMLINE" ROTARY METAL DECORATING PRESSES



GRAINING MACHINES



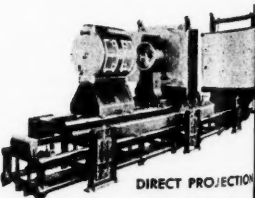
WHIRLERS FOR GLASS PLATES



TWO COLOR TUBE COATING MACHINES



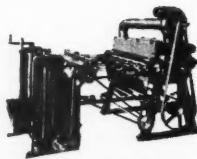
PHOTO-LETTERING MACHINES



DIRECT PROJECTION MACHINES



AUTOMATIC SUCTION PILE FEEDERS (attached to Coating Machine)



AUTOMATIC PILE LIFTS (attached to Dusting Machine)



MULTI-COLOR COLLAPSIBLE TUBE PRINTING MACHINES

# WHEN IN NEW YORK

be sure to visit our display rooms at conveniently located 100 Sixth Avenue. We'd like to show you our latest developments in high-speed plate-making equipment.

*Rutherford*  
**MACHINERY  
COMPANY**

DIVISION GENERAL PRINTING INK CORPORATION  
NEW YORK • CHICAGO • SAN FRANCISCO  
100 Sixth Ave. 608 So. Dearborn St. 1425 Folsom St.

"Hot Weather  
doesn't Cook our Goose  
since Daycos are  
on the Job"

says Mr. Henry Naour,  
of the Ainger Printing Company, Detroit



There's never a dull moment when advertisers in motordom's capitol give printers the green light—and there's never a lost minute—no stopping of production to adjust rollers with durable Daycos on the job.

"Daycos," says Mr. Henry Naour, The Ainger Printing Company, "don't cause delays due to swelling. Even when it's hot enough to fry eggs, Daycos deliver trouble-free production on big runs. Solids, halftones, tricky stocks—they're all the same to Daycos. They take heat, cold and high speed in stride."

Most printers the country over have learned that Daycos *do* speed production and contribute towards better Letterpress, Offset and Intaglio work. They know that the Ainger Printing Company's excellent experience with Daycos is typical. But do you? Do you know that Daycos are ideally adapted for all usual



An efficient, effective and a practical craftsman—that's Mr. Henry Naour, of the Ainger Printing Company, Detroit, shown in these photographs as he examines one of his Dayco-equipped presses which turn out top-quality, high speed work.



and unusual applications—for all classes of printing and special printing machines?

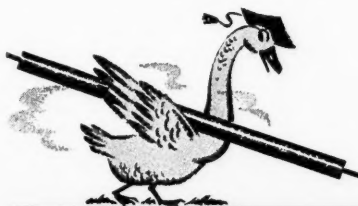
If you do not know by experience what Daycos will do in your plant, let us have a Dayco representative study your requirements and prescribe Daycos built specifically for your needs.

And no matter what type of work you do—you simply keep Daycos clean and

watch them perform like new rollers for millions and millions of impressions. And remember, there is only one *genuine* patented renewable surface type roller—it is a durable Dayco, the answer to better work and lower production costs.

THE DAYTON RUBBER MFG. CO.  
DAYTON, OHIO

The Originators and Pioneers of Synthetic  
Rubber Printing and Lithographic Rollers



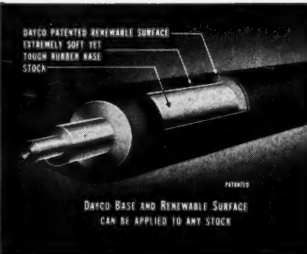
## Dayco Rollers

The Original Synthetic Rubber



Printing and Lithograph Rollers

THE ALL-PURPOSE ROLLER FOR FORM, DISTRIBUTOR, DUCTOR, ETC.



Please Mention The INLAND PRINTER When Writing to Advertisers

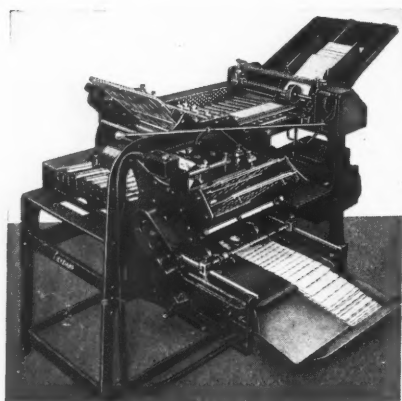


Highspeed Production  
Equipment

# DEXTER

Folders, Formers,  
Trimmers, Stitchers

## PROFIT BY THIS EXPERIENCE



Model "W" Cleveland Folder

**W**E WOULDN'T know where to look for a Trade Binder who does not have one to a dozen or more Cleveland Folders.

Binders have to give **SERVICE** to make money and retain their customers. Their universal use of Clevelands is concrete evidence that they depend on **CLEVELANDS** for production and profit on their folding.

When new and better Clevelands are built, Trade Binders are quick to install them and get the benefits of higher production and better folding.

If you are a Printer within reasonable reach of an up-to-date Trade Bindery equipped with Modern Clevelands and a will to **SERVE**, you are fortunate. But many Printers are far away from a Modern Trade Bindery and require their own folding equip-

Whether you are a **PRINTER**, a **BINDER** or **BOTH**—when you install a new Folder, do as the **PROGRESSIVE TRADE BINDERS** have done—**THEY KNOW!**

## Buy a CLEVELAND and have the BEST

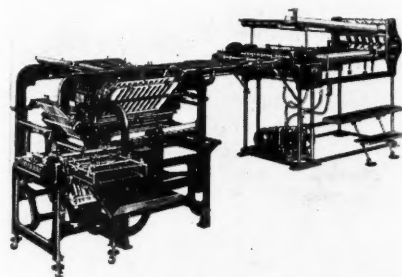
ment. If you are one of these, you need Modern **CLEVELANDS** in order to compete and render equal **SERVICE**.

If you do not have sufficient volume to maintain a complete Bindery Organization, a Model "W" or a "Double O" will give you the best available service, speed and variety on your job and direct mail folding, leaving your large sheet folding for the Trade Binder.

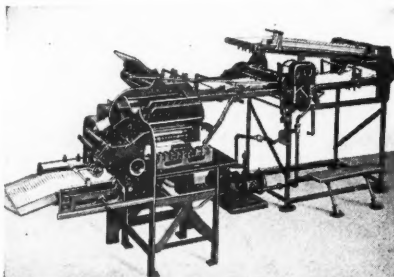
If you require a fully equipped Bindery to handle your volume, Mod-

will be second to none.

It costs you nothing to become acquainted with the new Cleveland Models. Write us for information — no obligation.



"Double M" Cleveland Folder



"Double O" Cleveland Folder

ern Clevelands of larger sizes will give you a Bindery Department that

### THE NEW CLEVELAND MODELS

Model "W"—3 x 4" to 14 x 20"—5 folds—2 Sections.

Model "OO"—4 x 6" to 22 x 28"—9 Folds—3 Sections.

Model "MM"—5 x 7" to 28 x 58"—11 Folds—4 Sections.

*New Models are more than 50% faster than older Models.*

Exhibitors, Graphic Arts Exposition, New York—September 25th to October 7th

### Dexter Folder Company, Pearl River, New York

NEW YORK, 320 West 42nd Street

BOSTON, 185 Summer Street

DALLAS, J. T. Carter, 234 North Avenue

SAN FRANCISCO, LOS ANGELES, SEATTLE, Henry W. Merrill Co.

CHICAGO, 110 West Harrison Street

CLEVELAND, 1900 East Avenue

BIG





# Goliath

## FELL FOR A PEBBLE

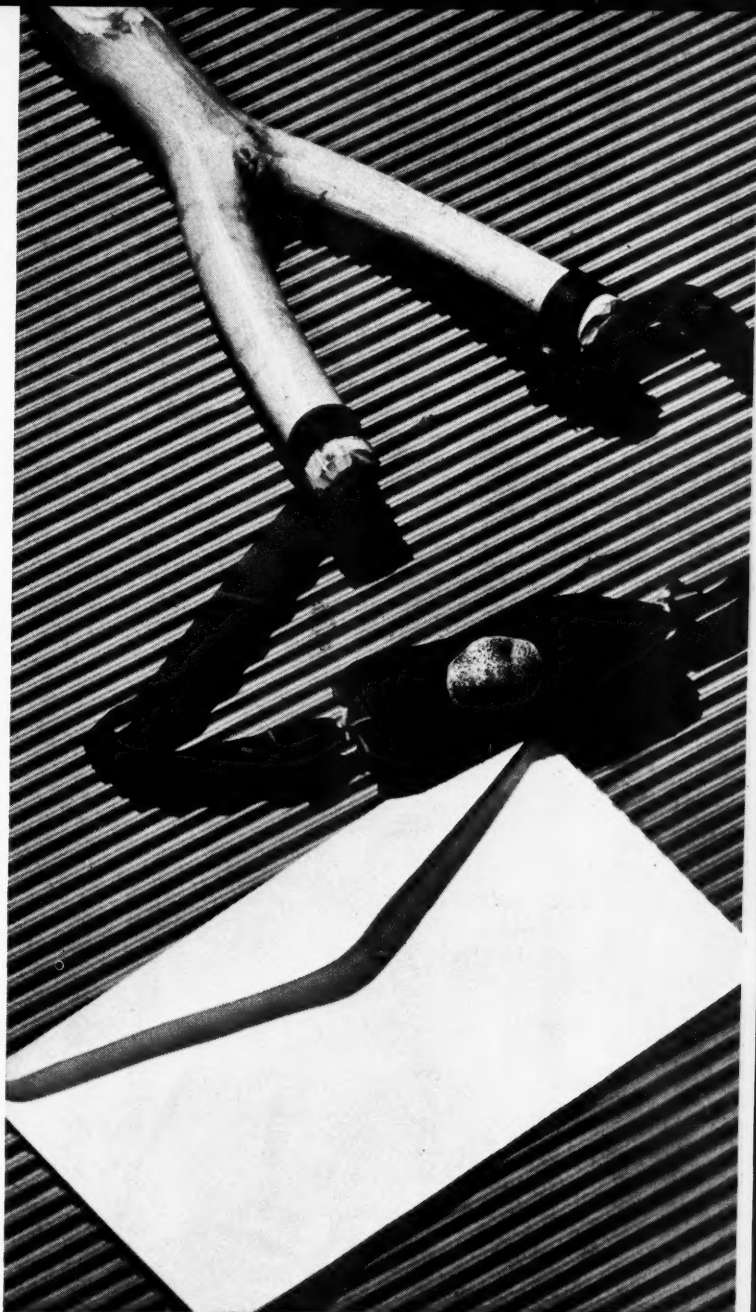
It looked like a tough assignment for David. Goliath was such a "big outfit." But he fell for a pebble because it hit him squarely between the eyes. David had evidently surveyed the situation and had picked out the part he could handle.

There's a lesson here. Big outfits have their vulnerable spots. Large users of envelopes have a lot of typical printer envelope business.

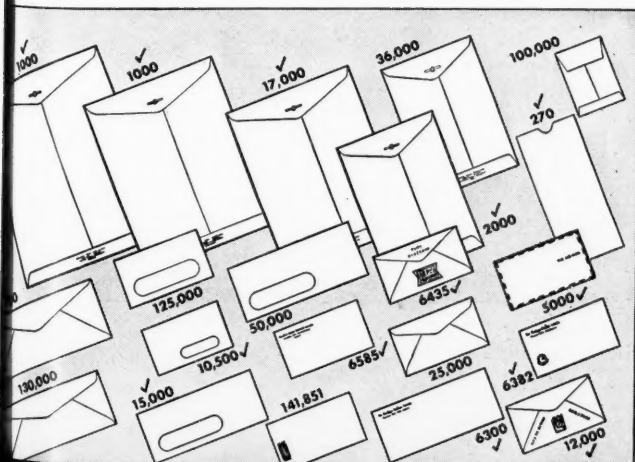
For instance, here's a year's envelope requirements by a well-known national advertiser. The total volume adds up to 707,323, but it comprises 21 different kinds and sizes, and 14 of these separate lots are for quantities of less than 20,000 each—business which any printer can handle profitably.

There must be several such cases among your present customers and prospects. Would you like to know how other alert printers get this business? Then send for the portfolio offered below.

*United States Envelope Company*  
General Offices  Springfield, Mass.  
12 MANUFACTURING DIVISIONS... 5 SALES-SERVICE OFFICES



## BIG BUYERS OF ENVELOPES HAVE A LOT OF *Printer* BUSINESS



U. S. E. Envelopes are guaranteed—the evidence appears in every box—use this fact in selling—it pays!



How to get your share of envelope business profitably is explained in a U. S. E. portfolio—the "Extra Profits" Plan. Ask your paper merchant for a copy, or send us this handy coupon *now*. It's free to printers in the U.S.A.

U. S. ENVELOPE CO., Dept. 1-5 21 Cypress St., Springfield, Mass.  
Please send me the "Extra Profits" Plan as advertised—free.

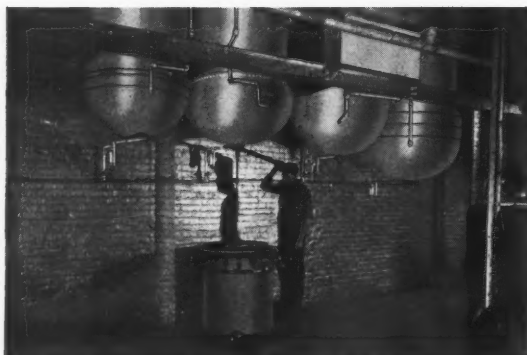
Firm Name \_\_\_\_\_  
Address \_\_\_\_\_  
Attention of \_\_\_\_\_  
My Paper Merchant or Envelope Supplier is \_\_\_\_\_  
(This offer is limited to the United States)

# ONE OF THESE DAYS



## THESE PICTURES

give you an idea of the bigness and completeness of our newly modernized plant.



## ...YOU'RE GOING TO WANT BETTER ROLLERS

THAT'S WHY YOU OUGHT TO TRY AMERICAN ROLLERS NOW

• Every experienced printer knows that, other things being equal, the maintenance of high quality production depends to a big measure on roller performance. That's why we urge that you give AMERICAN ROLLERS a trial and see the results for yourself. The dependable manner in which they influence fine printing will be plainly apparent. This superior ability is built into them in our splendidly modernized factory. Here the finest raw materials are processed in the best of mechanical equipment. Finally each roller gets regulated treatment in our Scientific Storage Room under temperature accurately controlled by the most modern scientific apparatus of the kind. That's why these rollers retain the high quality we give them. Learn these facts through a test. Order a set today.

AMERICAN Roller Co. 1342 N. Halsted St., Chicago  
735 E. Ohio St., Indianapolis

**TRY**

# AMERICAN ROLLERS



# Permanized **LEDGER** Papers

**make ink figures easy to see**

Ledger paper should be easy on the eyes. It should not glare or shine. Yet it must serve as a background for ruling and ink figures—a background that provides a scientific vision-aiding contrast.

*Permanized Ledger Papers* are manufactured with this in mind. For instance, ink figures placed on the new *Permanized* no-glare, white ledger are easy to read. Vision is rested by the effective contrast, protected by the no-glare, white finish.

*Permanized Ledger Papers* have many other advantages. Made with the famous, pure Whiting Springs Water, finest cotton fibres and highly purified chemical pulp, they are rugged, stay clean and crisp a long, long time. They are able to

withstand the effects of years in vaults or storage.

Likewise, *Permanized Ledgers* print well and work beautifully on ruling machines without skipping or curling. They take machine-posting, typing and pen-writing equally well. And erase cleanly, leaving a hard, fuzz-free surface.

*Permanized Ledger Papers* in every grade are exceptionally fine. You will find they compare favorably with other ledgers of comparable grade.

Available in no-glare white and buff. Many items in blue. *Manufactured exclusively by*

**WHITING-PLOVER PAPER COMPANY**

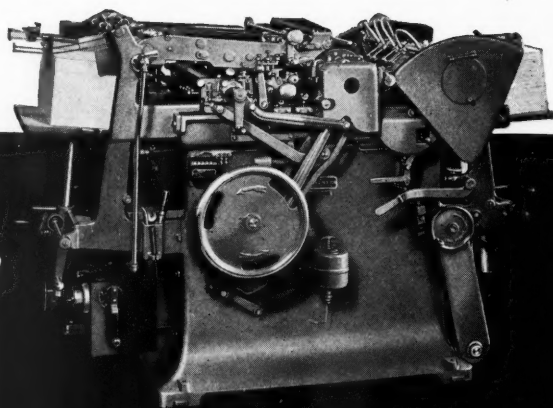
Stevens Point, Wis. • 71-73 Murray St., New York City

**BOND PAPERS • LEDGER PAPERS • THIN PAPERS • KEYBOARD TYPEWRITER PAPERS**

*Please Mention The INLAND PRINTER When Writing to Advertisers*



12 X 18 CYLINDER PRESS—A larger size of the popular C & P Cylinder heretofore available only in 11 x 15 size. Provides greatly increased capacity.



# YOU WILL PROFIT

BY STUDYING THIS NEW  
CHANDLER & PRICE EQUIPMENT  
SHOWN FOR THE FIRST TIME

AT THE *Graphic Arts Exposition*

Coming off the Chandler & Price production lines are three new machines that will be introduced at the Graphic Arts Exposition. They are:

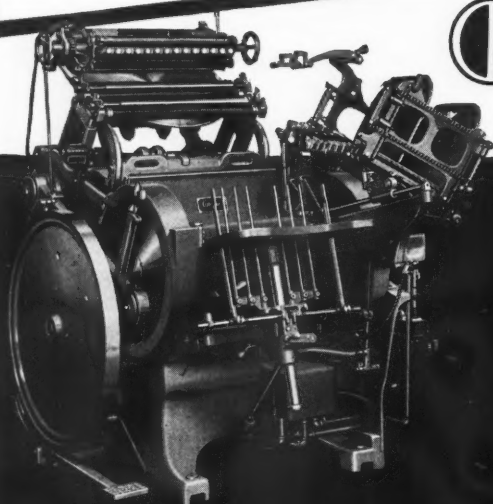
- 14½ X 22 CRAFTSMAN HEAVY DUTY PRESS with Impression Control
- 12 X 18 CYLINDER PRESS
- 34½-INCH NEW CRAFTSMAN CUTTER

You will want to study each of these units in detail—to learn first hand all the advantages that have been incorporated in each and to realize personally how they can increase production and profits in your plant. We'll be expecting you at the Chandler & Price display.

● If you do not attend the exposition, write for complete details of this new equipment.

**THE CHANDLER & PRICE CO. • CLEVELAND, OHIO**  
NEW YORK—Grand Central Palace—480 Lexington Ave.  
CHICAGO—Transportation Bldg.—608 S. Dearborn St.

Coast-to-Coast Sales and Service through nearly half-a-hundred offices of American Type Founders and other dealers.



14½ X 22 CRAFTSMAN HEAVY DUTY PRESS WITH IMPRESSION CONTROL and continuous feeding attachment. The only automatic press that does fine quality printing and also does die-cutting, creasing, embossing, etc. Impression is controlled with mechanical accuracy without touching the packing on platen—a new feature on this press.

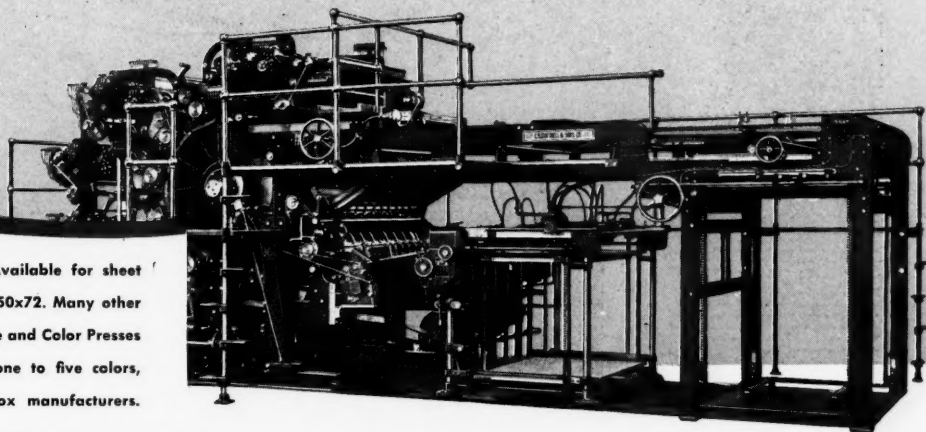


34½-INCH NEW CRAFTSMAN CUTTER—Chandler & Price Craftsman Cutters have made a name for themselves wherever used. This 34½-inch unit has been redesigned to include all the most recent improvements of C & P cutters.

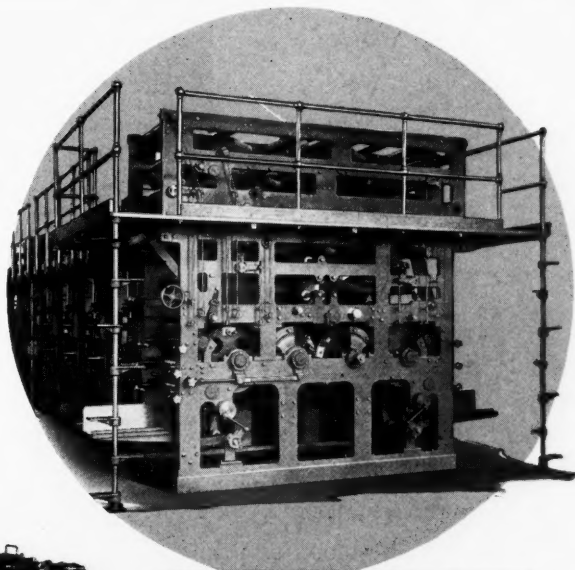


# Cottrell Contributions to the 1939 Graphic Arts Industry

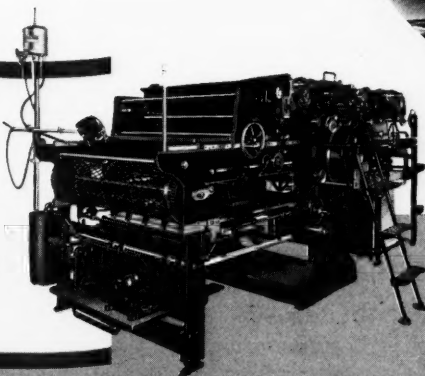
Cottrell Five-Color Rotary Press. Available for sheet sizes of 25x38, 32x45, 38x50, and 50x72. Many other types and sizes of Cottrell Magazine and Color Presses are available, for printing from one to five colors, including equipment for paper box manufacturers.



For many years the name COTTRELL has stood for the best in magazine and color printing. Today this name means more to more different kinds of printers than ever before, because in recent years Cottrell has added new types of presses to its well-known line. Three of these latest contributions to the graphic arts world of today—and tomorrow—are illustrated on this page . . . a typical Cottrell Five-Color Magazine Press, a Cottrell Six-Color Rotogravure Press, and the Cottrell Claybourn Two-Color Rotary. All of these units are demonstrating—in different fields—the profit-earning capacity which is characteristic of all Cottrell constructions.



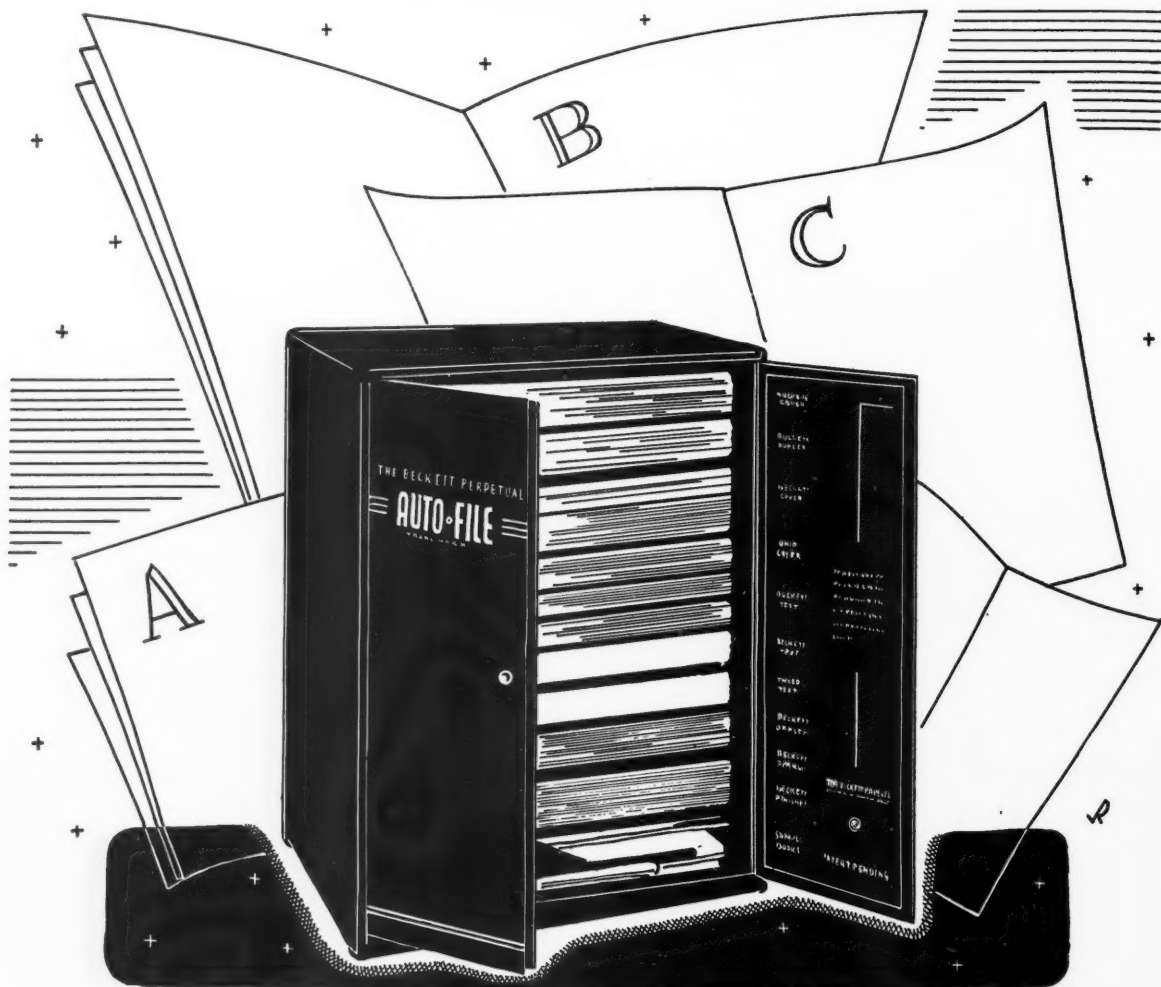
Cottrell Claybourn Two-Color Rotary Press. Made in three sizes, for maximum sheets of 29½x28, 29½x45, and 36x48, respectively. Spray mechanism shown at left is extra equipment. The introduction of this machine brings rotary press speed and economy within the reach of the average printer.



Folder end of Cottrell Rotogravure Press. This particular press prints two colors first side and four colors second side, at 15,000 cylinder revolutions an hour. It is used in the production of two leading national magazines.

# Cottrell

**B. COTTRELL & SONS CO., WESTERLY, R. I.**  
NEW YORK: 25 East 26th Street • CHICAGO: 332 South Michigan Avenue  
CLAYBOURN DIVISION: 3713 N. Humboldt Ave., MILWAUKEE, WIS.  
SMYTH-HORNE, Ltd., 1-3, Baldwins Pl., Gray's Inn Road, LONDON, E. C. 1



THE A. B. C. of good printing service demands that you have always on hand appropriate papers for whatever kind of work your customer may require. As prompt service is the life-blood of printing success the delay in searching for suitable stock loses many a printing order. Sometimes it results in the substitution of a paper that is "nearly as good."

The Beckett Perpetual Auto-File, made of steel and beautifully finished, with its 300

12 x 18 (before folding) dummy sheets, and the permanent free service which goes with it, insures prompt service, makes easy the job of selling and prevents painful "kick-backs."

The dummies include a great variety of cover, text, offset and opaque stocks—all of the famous Beckett name. It is offered to members of the graphic arts for the nominal price of \$5.00, and your money will be promptly refunded if you are not pleased.

THE BECKETT PAPER COMPANY  
MAKERS OF GOOD PAPER IN HAMILTON, OHIO, SINCE 1848

Copyright, 1939, by The Beckett Paper Co.

NEW YORK  
BOSTON

*LIVERMORE*  
*and KNIGHT*  
42 PINE STREET PROVIDENCE R.I.

ESTABLISHED 1878

August 25, 1959

Mr. V. A. Cosler  
E. I. du Pont de Nemours & Co., Inc.  
Wilmington, Delaware

NEOPRENE BLANKETS AND ROLLERS

Dear Mr. Cosler:

We have given neoprene rollers and neoprene offset blankets a thorough trial and know you will be glad to learn that we credit this product with showing us substantial savings, both in replacement costs and production economies.

**Offset equipment.** The greater durability of neoprene offset blankets has effected a 60% saving in blanket costs over the trial period. Production economies through elimination of routine blanket changing, have proved fully as great.

We have found that once a neoprene blanket is on a press, then it remains for a length of time that is new in our experience. There is no swelling, no embossing over type area - troubles always present in blankets we formerly used. Neoprene rollers on our presses likewise are displaying superior qualities over

**Letterpress equipment.** composition rollers, trouble-free

"OUR  
BLANKET COSTS  
HAVE BEEN CUT  
AT LEAST 60%"

"Our blanket costs have been cut at least 60 per cent since we standardized on neoprene blankets two years ago," says M. Harry Doherty, litho foreman. "With old-style blankets, the ink oil attacked the rubber, causing type areas to emboss. This type showed up on half tones in the next form run. We had to change blankets constantly. A neoprene blanket, however, stays on the press for job after job throughout its life."

Anthony Waskiel, pressman of a 70-inch two-color offset press, likes neoprene rollers because they enable him to turn out volumes of fine work day after day without interruption. "Neoprene rollers don't swell or soften, become tacky and uneven like rubber rollers" says Anthony.

**F**OLLOW the example of hundreds of leading printers who are combining highest craftsmanship with highest efficiency. Use neoprene rollers in your own plant. You'll find they don't have to be coddled and pampered like ordinary rollers. You don't have to be fussy over driers and washes, either.

As for inks—neoprene does a fine job with all of them. You'll find you're turning out more quality work than ever before—and without headaches! Order neoprene blankets and rollers from your regular supplier, E. I. du Pont de Nemours & Co. (Inc.), Rubber Chemicals Div., Wilmington, Del.



**NEOPRENE**  
quality printing rollers

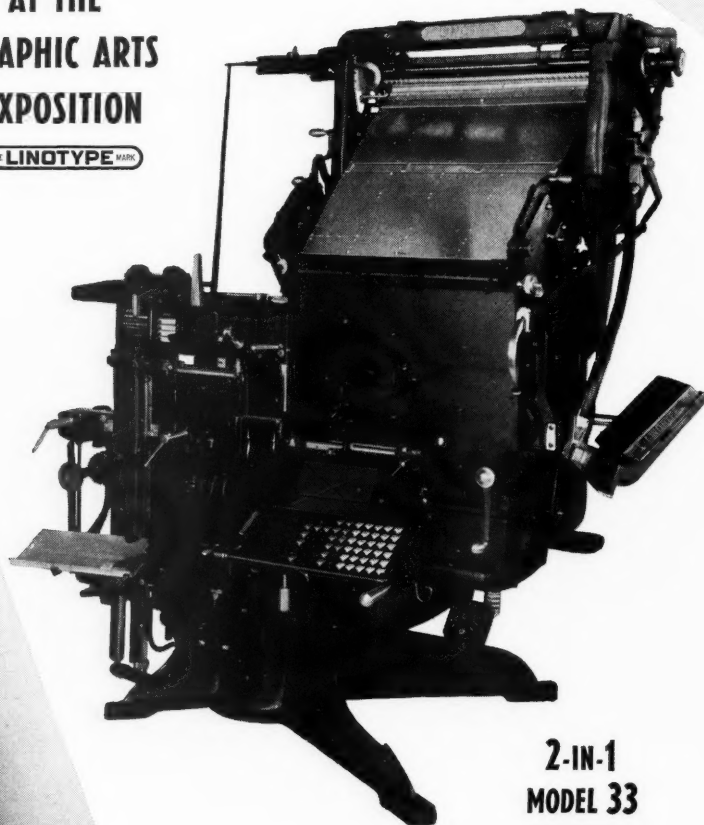
**NEXT TIME YOU ORDER PRINTING ROLLERS, DON'T ORDER "SYNTHETICS"—SPECIFY NEOPRENE**

Please Mention The INLAND PRINTER When Writing to Advertisers

# PREMIER SHOWING

AT THE  
GRAPHIC ARTS  
EXPOSITION

TRADE **LINOTYPE** MARK



**2-IN-1  
MODEL 33  
LINOTYPE**

**SCORE AGAIN** for Linotype Accomplishment! This time it's one of the most important advances in a good many years. It's a Linotype with 72-channel and 90-channel magazines . . . *all* of them 35% wider than standard. Result: Unequalled flexibility! It sets both display and text, but its 90-channel magazines can carry

sizes through 24 point normal faces, a third larger than any other 90-channel magazine, while the 72-channel magazines carry full 36 point faces. It's the first 100% extra range 72-90 machine. This single distributor Linotype incorporates all the exclusive Blue Streak advantages plus many brand-new ones. See it at the show!

**We'll Be Seeing You**—When you visit the Graphic Arts Exposition at New York, we're expecting you at the Linotype section. Besides this great new model there will be other Blue Streak models and new mechanical developments that will excite anybody who's interested in better production or better results. Sept. 25 to Oct. 7, don't forget.

Set in Erbar Bold Condensed, Gothic No. 16 and Scotch No. 2

# LINOTYPE



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## UPHOLDING A TRADITION

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WHAT IS IT that keeps the flame of creative inspiration burning in the hearts and minds of Craftsmen? Is it the thought of gigantic printing presses? Of lusty linotypes that cast out word after word, sentence after sentence? Is it the goal of perfection that today seems within reach and tomorrow beckons us anew?

Just as the world and all the people in it change—just as new ideas gather momentum and render obsolete the beliefs of a day, a month, a year—so do the problems of our craft raise new questions, demand new answers. And to bring these answers out of obscurity, we have banded together that many may make possible what one alone would find impossible. Ours is the selfsame spirit of coöperation, understanding, and helpfulness that is symbolized by the determination “I Will”—two mighty words that brought the city of Chicago

from the smoking ruin of 1871 to the broad-shouldered metropolis of today.

Today my fellow Craftsman gladly offers me the benefit of his painstaking experience in the Graphic Arts—tomorrow I will be able to lighten his burden by imparting knowledge that will add to the beauty and effectiveness of his work. In this way, we and all our fellow Craftsmen build toward greater satisfactions in our daily work—proudly recognizing our responsibilities as heirs of the great “I Will” tradition of our city, the hub of the nation.



THE CHICAGO CLUB OF PRINTING  
HOUSE CRAFTSMEN

★

★



## STREAMLINING THE GRAPHIC ARTS\*

I WAS LITERALLY CHASED into the printing business. En route home from school one afternoon, with not one of my own crowd within sight or earshot, I suddenly found myself all but surrounded by a large contingent of shock troops from the enemy gang. There was one opening. I took it—at high speed. The foe right at my heels, I dashed through the rear door straight into the *Quenemo Republican*. My retreat was covered by one “Muskogee Red,” who, like Horatius at the bridge, kept the foe at bay.

Quenemo gets into the metropolitan press every few days because a Kansas City turfman saw fit to give the name to a new-born colt a couple or three years ago. The town used to be Red’s home for varying periods of the year’s three seasons, winter only excepted. Before the arrival of Mr. Woolf’s colt, Red did more to get the town’s name into print than anyone or anything else. Whenever the body of a red-headed hobo was found, unrecognizable or nearly so, along the railroad tracks of the Kansas-Texas axis, it was invariably said to be the remains of Muskogee Red, who delighted in collecting and showing these stories of his tragic end. It was a hobby with him up to the day he really died, in bed, at Marion, Kansas, age seventy-seven. Red it was who initiated me into the mysteries of the printing art.

Shortly after the die had been cast, and I was a regular on the *Republican*, working after school for two hours, Mondays through Fridays, and ten hours on Saturdays for what seemed

good pay (\$1.50 a week), the pressure began! It started when the town patriarch met me on the street one day and took me to task, saying, in effect, I’d get somewhere in the world if I went in for law. It was just too bad, he thought, that I seemed bent upon becoming a bum printer.

Close to forty years have passed since Bob Reynolds set out to save me, but the creative and esthetic angles of the printer’s work have held my interest constantly ever since. When I contemplate how interesting the work is, and the remarkable progress which has been effected in the whole graphic arts field, I’m convinced it is just as good a business as any, if not a little better than the best of all the others. When you consider that, as seems most logical, we could dispense with almost any of our modern miracles more readily than with printing, which made most of them possible, you’ll realize how great printing really is.

Bob Reynolds considered printing a poor business. Of course, there were incompetent master printers in his day just as there were roving, and often drunken, compositors and pressmen. Men go broke in the printing business today, just as they do in other lines. However, you know your Chicago. What concern in any line is better housed than the one in that great monument to the printing industry on East Twenty-second Street, R. R. Donnelley & Sons Company? Look it over! Then, there are the great plants of the W. F. Hall Printing Company, Rand-McNally & Company, and Cuneo. If you think printing is not a good business, visit those establishments.

In rating the industries of our fair city, many would say meat packing is its leading one. That is not so. The printing and publishing industry ranks first. Meat packing leads in

value of products, with a figure of \$476,899,668.00 compared with that of \$345,666,054.00 for printing and publishing, second in that respect. But in what is more important, value added to products through manufacture, printing tops the list as it does in number of establishments. There are 1,545 of them. Wage earners total 47,155, and wages, \$74,854,830.00.

As he helped lug this big case of samples here on the table for demonstrating new, and relatively recent, developments of the graphic arts, our Mr. Joyce asked what it contained. When I told him, he said, “You know, J. L., I’ve an idea that some day 10,000 sheets will be piled under some kind of an X-ray affair and the whole pile ‘printed’ in a split second by light (just as photoprint is made through a negative).”

Yes, laugh. I did, too. Then I recalled the St. Louis *Post-Dispatch* is sending a newspaper through the air which is “printed” and rolled out of a radio receiving set in the home. You know, of course, that newspapers are receiving pictures over the telegraph wires every day. Not so many are aware of the fact that halftones can be made from photographs by action of a photo-electric cell in a few minutes and without use of present methods of etching with acids.

“Streamlining the graphic arts” is not just a glamorous title which the realities do not fit. It is a fact, an accomplished fact, and still developing.

Because it is so visual, no more dramatic and convincing demonstration seems possible here than to show the streamlining which has come about in type and typography.

I show this circus poster to you, not because it is dated with the year of my birth, but to demonstrate how many things with no functional purpose

\*Substance of an address by the Editor at a joint meeting of the Chicago Federated Advertising Club and the Chicago Graphic Arts Federation, Incorporated. Readers will note references to specimens in the address; for example, “this poster.” In the address, of course, the appropriate sample was shown to illustrate the point.



were then crammed into advertisements to handicap what should function effectively, the type. "Muskogee Red" might have set it, although I am not certain. I am certain, however, that whoever did set it told me it required three weeks (180 hours) to set this and the other three pages of the piece which are simpler. We pass quickly over these examples of other stages in typography—good, bad, and indifferent—and, finally, to a period when beauty, more than anything else, was depended upon for attention.

This Caslon style was criticized because it was "not only staid and dull," but because borders in that period were seemingly considered most important. The modernistic movement began, and it brought weird, involved, incomprehensible things, startling to see. "Type," averred the late Hal Marchbanks at the time, "isn't considered good today unless it's black as hell."

Now, this advertisement emphasizes *today* as well as anything could. It is truly modern. No feature distracts the reader's attention. It has "color" and punch and lives up to the basic principle of modern design, namely, "Form follows function." In comparison with the old-time locomotive puffing and belching smoke, and the elaborately ornate circus poster of its day, this advertisement typifies the modern Diesel-powered streamlined engine.

The printing industry has developed for greater efficiency: it has been streamlined in other ways than in type and typography. When I learned the business, every letter set up had to be laboriously distributed in the cases for use over and over again. In other words, work on an advertisement or other printing was almost doubled. Today, except in the case of especially expensive work, those using foundry types, distribution is practically a thing of the past. If you get a quotation on a job to be set by hand and compare it with one contemplating machine composition, you'll see how much you benefit in consequence of this one of many remarkable changes which have taken place in the production of printing.

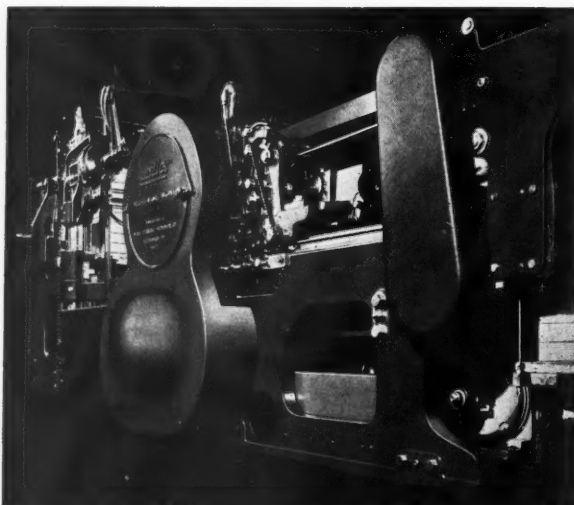
Improvements developed in Chicago to the end of increased speed come in for mention. I attended a convention some six or seven years ago at which a prominent press manufacturer demonstrated a new model of an existing machine. A printer from the East, viewing this display, said, "This is all very fine, but what does it do for me? I have presses of an earlier model, some of them bought not so long ago; yet, here the speed is stepped up to such an extent it places me at a decided disadvantage." Such a situation is

machine) is a thorn in the flesh of many a printer. While much turned out by the method, as by mimeograph, would never be issued if it had to be printed by orthodox methods, particularly letterpress, indubitably the printer has suffered. Not only has he lost presswork, but composition as well. Text for a large amount of the work is typewritten. The copy is laid out with proofs from type of display and drawings, a negative made, and the whole business printed on the zinc, offset press-plate at one shot.

Always objectionable has been the ragged right-hand side of typewritten copy. To overcome this and achieve a straight right-hand side of the typed copy, matter was often changed and two spaces inserted between some words of a line, in the retyping, to serve as camera copy. The consequent, too-apparent variation in word-spacing is, of course, objectionable. To overcome it, justifying typewriters were developed. Copy is typed as nearly as possible to the desired measure, each line a bit over or under. Then it is checked as to amount over or under and retyped, following adjustment of one of the gadgets you see

in this picture. This has the effect of reducing or increasing the width of spaces between words in amount required to achieve the desired straight right-hand side, in fact, to justify. Such machines are available equipped with letters known to printers—like Bodoni, say—in place of the regulation typewriter face.

But, that isn't all. Look at this pad of small cards, each bearing the print of a character of a display type. These are assembled in the order required by copy in the slotted holder marked off in picas and half picas. They are justified here to measure just as types are justified in a composing stick, by letter and word spacing, then held in place by scotch tape. Letters are on both sides of the cards so the tape permits laying the strip—the display line—in position on the layout just like the typed copy for text and drawings, or photostats reduced from drawings, to provide copy for the camera and, finally, the press plate. We have type-



*Modern, streamline designing steps up the efficiency and appearance of printing presses just as it gives speed and beauty to the modern locomotive. Illustration courtesy Miller Printing Machinery Company*

common. It is hard on some, at times, but progress must be, has been, and will continue to be as marked in printing as in everything else. Standing still is as fatal in our industry as others.

The offset process has contributed mightily to streamlining in the graphic arts. The debased type of offset—planograph—increasing in use by leaps and bounds, caused great excitement in the ranks of printers, continues to do so. It is constantly being improved. As a matter of fact, regular offset has also been greatly improved by the deep-etch process and in other ways. Qualities of color which were unknown in offset printing fifteen years ago are achieved and plates are made to wear longer. Where once a color offset job would require seven plates and as many runs, today four suffice, just as in color process by the letterpress method.

As already stated, planograph (including "multilith," which is the same thing under a name derived from the



less printing—except, of course, for that used to print the sheaf of cards bearing printed letters which, as you see, are set very much as metal types are set by hand.

I could talk all day long on the past remarkable development in efficiency of printing methods which bring you a better product at a better price. But a word as to future possibilities which it is proper to introduce right here. I refer to methods being developed for photo-composition—eliminating metal type altogether. Several machines for this are in process of development. The simplest, most understandable one utilizes the linotype mechanism. Briefly, the mats, instead of having letters engraved, have them showing white against black as in this illustration. Mats are assembled in the regular way, with space bands, and sent in to be cast. However, in place of the linotype's metal pot, there's a camera with a spool of film inside. When the line comes into position to "cast," a light in front, outside, flashes and a strip of film (one line) is exposed. The strip moves onward a space to make the exposure of the next line. This is continued through the roll of film until the entire newspaper column, let us say, is in negative form.

There is no denying the significance of all this in the case of offset and gravure where plates must be made in any event. There is significance, too, in the fact that during the past couple of years several publishers have adopted offset for producing their papers in whole or in part. The largest of these is the Trenton (New Jersey) *News-Advertiser* which, with a large web press, now turns out sections by offset such as the *Chicago Sunday Tribune* produces by rotogravure.

It is pertinent to remark that one factor responsible for the great increase in offset has been the cost of plates required for letterpress printing. Doubtless, this is also influencing newspaper publishers.

However, one thing leads to another. One branch of the industry competes with another—a fight of wits and brains—to enjoy the lion's share of equipment sales as well as orders for printing.

After seeming to lag a bit, letterpress is now going stronger.

Within the last year, an entirely new type of letterpress machine has been developed in Chicago. Plates are in relief, photoengraved, but thin just like offset plates. These are clamped

onto the impression cylinder just as offset plates are clamped on. Those of you who know something of speeds of presses will be surprised when I tell you this *Wale* press is capable of 15,000 impressions an hour.

Don't let anyone tell you the printing industry lags in speed even with what might be called orthodox equipment. It has gone far in the way of streamlining, both as to speed and improved quality. Only the other day a prominent Chicago printer was talking with his superintendent about a certain large order in process. He told

### WE HOPE HE IS RIGHT

● "I do not believe," says Sinclair Lewis, "that anything will altogether supplant the old-fashioned printed book, which has changed so little since Gutenberg finished printing the first book, a Bible, back in 1455. I do not believe that any nimble television apparatus, any series of phonograph records, any ingenious microscopic gadget whereby you can carry the entire works of Balzac in your cigarette case, will ever take the place of books, just as we know them."

the superintendent that he should net 2,000 impressions an hour when he was getting only 1400 or 1500. The superintendent remarked he could not increase the speed on account of the rollers. The next day the record disclosed a decidedly increased run. The pressman reached the mark his chief set for him and the rollers stood the gaff.

There have been very decided advances in printing plates. All of you will recall one morning not so long ago when the *Chicago Tribune* printed a four-color illustration three columns wide. We have had four-color advertisements in newspapers for a long time, but the plates for such were prepared much in advance. In this late instance, the picture was "shot" and the four plates made and stereotyped within the course of a working day. It is conceivable that within a few years many pictures in that paper will be in full color.

You have probably also noticed more full-color pictures in the "*Saturday Evening Post*" and in the "*Ladies' Home Journal*," recently. This, also, is due to graphic arts development.

First of all, the benefits from the press which prints four colors at once, as it were, are possible only by reason of the new kind of ink which dries quickly. This is an accomplishment of the past year which many considered impossible of achievement.

One of the great graphic accomplishments of recent years is Kodachrome. You have seen color pictures in the magazine which obviously were not made from paintings, drawings (wash drawings), or anything of the kind, but from direct camera shots of the subject. A yellow, a red, and a blue film, when superimposed, give the engraver his copy.

Also recently developed, in this city, is a new type of printing plate based on the raised gelatin principle. It is said to be more economical than regular copper halftones—limited as to scope of screens—but, at the same time, it has peculiar advantages. One is that the celluloid, on which the gelatin is applied, can be "welded" fast to a base obviating the troublesome shoulder essential on copper halftones, unless anchored at extra cost.

There is also the Chicago product, Tenaplate, for molding electrotypes. It is claimed that sharper and otherwise better plates can be molded from this material than from wax or lead.

The Meinograph, another picture process, has possibilities. Instead of making a regulation set of four-color plates from full-color copy, a black-and-white photograph is the key. An artist paints the red, yellow, and blue separately on celluloid hinged over the black-and-white photograph. Plates are made with the minimum of difficulty in separation of colors. Whereas the black is just a shadow plate in the regular four-color set, the Meinograph black carries the details. Advantages result in the printing of these plates as compared with regular process plates. Presses can be operated more rapidly because there's less danger of offset than there is when a heavy film of one ink strikes upon a heavy film of another. Register is simplified and that also permits running the presses faster.

Printing will develop and changes will take place. Certainly, you advertising men should take a keen interest in printing, fostering these advantages as much as you can. Make use of newer developments. While you help the industry to progress—as it is bound to progress—you will be helping yourself as well.

Why has the trend toward smaller automatic presses, which began about 1913, continued unabated, if, indeed, it has not been accelerated? Why are printers using more smaller-size, speedier automatics? What influence is the increased demand for color printing having on size and kind of printing machines? In a word, what is the present *trend* in press sizes?

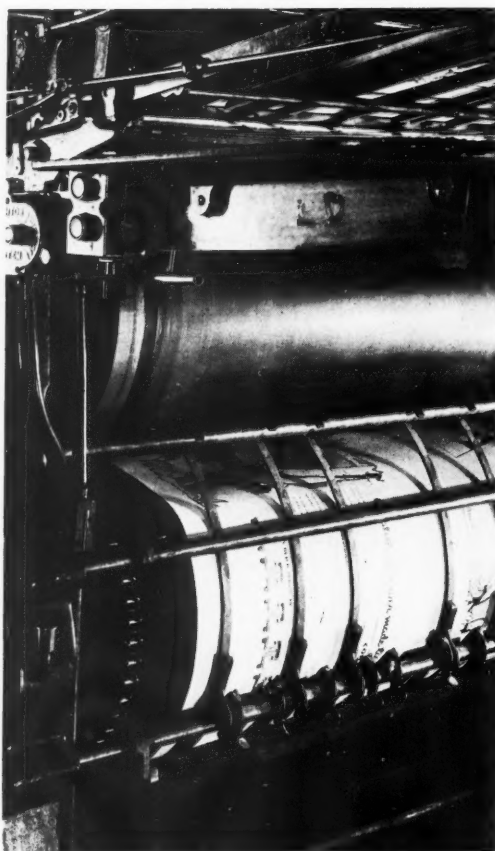
A representative of THE INLAND PRINTER, in an effort to ascertain the answers to these questions, interviewed printers and press manufacturers and consulted such printed data as is available. Scarcely more than a brief outline of the facts can be given here, but it is of exceeding interest and reveals some unsuspected counter trends.

During the thirty-two years prior to 1913, 61,326\* printing presses (49,607 platens, 11,719 cylinders) were sold in the United States. None of them was a job automatic cylinder because at that time such a machine did not exist except in an experimental stage. The year 1914 may be put down as marking not only the outbreak of the first World War, but also as the date of the birth in America of the small job automatic printing press. During the next sixteen years (half of the previous period referred to above) the average annual sales of presses of all kinds increased over 100 per cent. But in spite of this large gain, sales of platen presses fell off nearly 17 per cent from those of the previous period, while cylinder presses, exclusive of job automatics, increased only 1.2 per cent. During the period, the great increase was in the job automatics, of which there were sold 11,133, almost equal to the regular cylinders installed. Combining the job automatics with the regular cylinders, the total sold was 22,996, or a 96.2 per cent change over the period prior to 1913. By 1929, the job automatics composed over 17 per cent of the presses being sold annually. Some of the cylinders were rotaries which were

*"Displacement of Men by Machines," Elizabeth Faulkner Baker, Columbia University Press, New York City\**

# PRESSES

## Then and Now



*As the "skyscraper" bike of the Gay Nineties is to the silver clippers of America's airways in 1939 . . . so is a modern press to its ancestors*

introduced to replace batteries of the slower cylinders used in big edition work, bringing with them the economies of fast production.

Then in 1929 something happened. The crest of prosperity, which had been driving the big presses night and day to produce the printed matter stimulating business, reached its height. Advertising and sales promotion appropriations were cut drastically, when not entirely discontinued. Color in advertising, then making a hopeful entry, was dropped in favor of black only. Finally much of it dropped out of publication entirely. Direct-mail printing suffered even

more drastically. Pages and pieces rapidly decreased; sizes of editions slipped downward. No longer was it thought necessary or economical to "double forms" and press sheets were reduced in size. One after another, rotaries and big cylinders were covered with canvas.

Owners of the big machines, who had never added any of the small speedy job automatics to their equipment in their efforts to hold business, found themselves in sharp competition with the shops which had seen the trend and had equipped themselves with the job automatics. These required fewer operators, could be made ready quickly, and could be run at speeds which often put their production ahead of that of the larger machines.

At the same time there was considerable discussion throughout the industry on the need of better methods and more efficient machines for production, all stirred up by a quasi-government report revealing much waste in the printing industry. It was natural that the champions of the job automatics should put them forward as fine examples of what was desired in more improved machines.

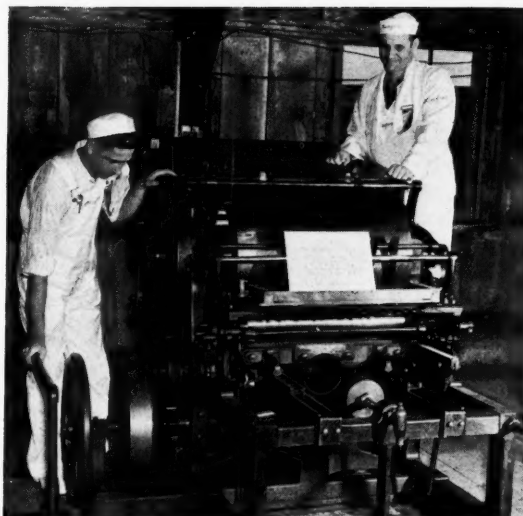
The depression, which followed quickly the 1929 break in business, seemed to favor the sale and installation of the smaller, speedier automatics. Their manufacturers pushed the automatics' advantages. But large investments in the great cylinder and rotary presses, lying idle because of lack of work, could not be replaced by smaller automatics overnight, even if it were desirable to do so to some extent.

Meanwhile, neither the engraver, electrotypist, nor trade compositor had done much to help keep the big presses in operation. The multiplication of plates and pages were essential tools in the operation of the big machines. Instead of these tools becoming cheaper in price, or being made with more precision, so as to reduce make-ready costs, the cost of cuts and composition actually rose. Thus was added another burden to the load which was forcing the big machines to lose

greater distance in the race with the automatics.

Then something else began to happen. Users of large cylinders, studying the situation, began to urge manufacturers to "speed up," by redesigning and other changes, the medium-size cylinders which, after the war, had been put out as automatic units. They had scored only a moderate increase in speed over hand feeding. By applying many of the principles used in the small job automatics, the medium-size automatic units could be made to run single sheets faster than the large cylinders were running sheets of double size. Furthermore, the medium-size presses could also be built for two colors. The manufacturers have responded to this demand. Today such installations are enabling printers to take care of a wide range of work that formerly went on the double-sheet presses. Therefore, the wide introduction into letterpress printing of smaller and speedier automatic presses has not only increased the number of small cylinders in use, but has extended the mechanics of the automatics to the medium-size presses. By their increased speeds, the latter have begun a still further elimination of large cylinders with their expensive dressing of multiple plates and doubling of forms. These medium automatic presses may be expected, to a large extent, to bridge more consistently and more economically the gap between cylinders and rotaries.

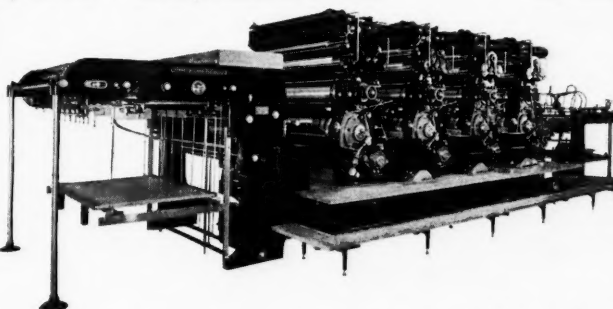
Of course the size and kind of press needed depends largely upon the nature of the business the printer has built for himself. Many printers told the reporter that they did not want large presses; they cared only for the smaller, fast automatics and have built up their businesses around such machines. Work that ordinarily might go on a large cylinder, they either "break up" into smaller press sheets and run on their automatics, thus keeping them busy all the time at less expense, or they pass it up. To have a large cylinder or two, working only a part of



Back in 1868, this Cottrell press was said to be the largest one-revolution press in Rhode Island. The Rumford Chemical Works used it until 1927. It is now in the concern's industrial museum

the time at greater expense for labor, makeready, power, and at slower speeds of production, they have found is not profitable. Furthermore, they claim there is less "grief" in the operation of small machines—register is simpler, paper shrinkage less, makeready less and more definitely estimated, and often the bindery work is less—all of which mean lower costs to the customer.

The trend in the sizes of offset machines has been somewhat different. Originally they were built in the smaller sizes and for one color. As the offset business developed, the presses have grown larger and incorporated extra colors. The small-size lithographic businesses and those letterpress printers who are introducing offset as a department of their business are confining themselves largely to the small-size single-color machines. The larger lithographers are finding greater production at lower costs in the large offset multicolors.



Modern four-color offset press. Many times larger—hundreds of times capacity of above. Photograph courtesy Harris-Seybold-Potter Company

Gravure, still rather new, and more or less in the development stage, shows little, if any, trend in press sizes.

However, it is reasonable to expect that developments along the line will, in all probability, parallel further development of the gravure process, as has been the case with other printing processes.

Also as an appreciation of gravure's possibilities grows on the part of advertisers and publishers, there will be a demand for greater gravure press production. It must be admitted that gravure is still suffering from some of the shortcomings of the past. There have been times when a poor product that was the result of bad workmanship was "explained away" by the

alibi of limitations of the gravure process.

Sometimes an out-of-register job was defended by the excuse that "register couldn't be held at the high speed at which the job was run." Naturally, after a few experiences of this sort, some advertisers who experimented with gravure for their special jobs grew wary and reverted to the older processes for all their work.

Let's hope these are all things of the past now—everywhere—and that the next decade of gravure will see it maintaining its records of achievement in the fields to which it is particularly well adapted, and that it will explore new ones.

★ ★

### More on Offset

Among the regular material that the special purpose of this issue of THE INLAND PRINTER compelled us to omit is that on offset—that fast-growing and constantly improving branch of the graphic arts.

To you printers who are installing or planning installing planographic printing equipment . . . a group that is steadily increasing . . . our October issue will be particularly interesting and helpful. In that issue there will be an authentic article which could appropriately be called, "Going Into Offset." WATCH FOR IT!



## SPRAYS—TODAY'S OFFSET REMEDY

By Eugene St. John

**C**ANNED AIR—air often under many atmospheres of pressure—harnessed to perform new tasks and to do old ones with new efficiency, is one of the trends of the times in many industries. There are air guns for spraying paint and cement on buildings—air brushes for applying color in the studio. And a most important practical application for the printing industry is the use of air to apply preventives against color in the *wrong places*, that is, the increased use of the spray gun to avoid offset.

With so many possible causes of offset—at least ten—the introduction of the non-offset spray gun truly filled a long-felt want. It is effective on superimposed multicolor prints, where sheet heaters fall short, as well as on single-color prints. In addition, by interposing minute particles of powder between the sheets, these not only function as slip-sheets but serve to hold the sheets apart sufficiently for air to penetrate and hasten drying.

While there are a number of makes of sprays in use, probably a dozen all told, the common principle is to spray a solution of vegetable powder by means of compressed air on the wet ink on the printed sheet on the delivery table or pile. The points to be observed in operation are to set the spray<sup>4</sup> to deliver minimum quantity of solution needed and at a point far enough from the sheet to permit the liquid to pass off, allowing only the powder to fall on the sheet. And, of course, the sheet should be sprayed only where the print is heavy enough to require it, in mixed light and heavy forms. An excess spray causes superfluous deposit of powder on the presses and motors. Many concerns have installed exhausts to remove the powder from the air.

Spray guns of both stationary and portable types are on the market. Search for a satisfactory dry powder spray which would avoid the use of a liquid has not met with success as yet, although a number of substances have been tried.

The spray gun should be at least eighteen inches away from the sheet but the distance is determined by the size of the sheet, the purpose being to have dry atomized solution reach the sheet. The particles, properly sprayed, are round, but if wet or damp

flatten out on the sheet and lose their effectiveness. All spray guns have a positive adjustment to regulate the quantity of solution. Test is made without air pressure. A continuous stream denotes too much solution. Correct adjustment produces minute drops at even intervals.

The quantity of air relative to the quantity of solution is of prime importance. High air pressure and a small quantity of solution yield minute particles of powder, while low pressure and more solution yield larger particles of powder.

The shape of the spray is arranged to cover all the surface of the sheet that requires spraying. Quite often it is necessary to spray only a part of the sheet and then only the part need be covered.

A simple test of the spray is to place the hand, palm downward on the sheet, allowing the spray to fall on the back of the hand. Then it is found whether or not it is falling in correct dry powder form.

Spray solutions or mix are available in several grades. The light and medium consistencies are suitable for use on the general run of work such as printing on the great majority of papers. When extra heavy inking is run on special stocks or board, a heavy dextrin solution is used.

Self-contained combination units are on the market. These are portable and can be moved from one press to another. The only work necessary is the addition of a cam, fitted to the most convenient moving part which allows operation of the spray in synchronization with the delivery. Change over is a matter of a minute or two. There is a limit, of course, to the work possible with portable sprays. If there are many presses, with frequent calls for the spray, a few would not answer.

In large pressrooms it is more economical and satisfactory to install a system of air pipe lines reaching each press, supplied by a central air compressor, driven by electric motor and an air receiver kept at predetermined pressure and with the capacity to supply all of the guns at the same time.

The compressors are fitted with air cleaners. An automatic cut-off allows the compressor to run continuously without exceeding the set pressure.

The spray gun is supplied with the spray solution from a second pipe running from an elevated reservoir, from which the solution flows by gravity.

The spray gun is operated by a valve controlled by a cam trip referred to above. The control of the spray gun by electrical contact switch is not necessary when the pressroom is equipped with a central system as above noted.

A distinctive equipment is in use on certain automatic platen presses. The power or momentum of the press itself produces the air needed to spray each sheet. This air pressure is produced by a small slow-running pump, driven by the press, coming into operation immediately after the press has started and engaged the clutch handle. Thus the pump starts and stops automatically with the press to which it is attached. It is always ready for instantaneous service.

A special type of spray gun, without multiple adjustment possibilities, is used and is virtually foolproof. The only adjustment required to suit different classes of work consists of rotating with finger and thumb the numbered and serrated thimble, which regulates the quantity of spray. By eliminating other adjustments, all possibility of error has been removed.

The question of the effect on health of the non-offset spray has been raised. Solutions have been analyzed and the solid portion is considered non-toxic but some individuals might be allergic to the particular substance.

### IN NEXT MONTH

Due to the special purpose of this issue of *The Inland Printer*, that is, tracing the recent technical trends in the industry . . . several of the regular features have had to be omitted.

Among the departments "in recess" this month is the very popular . . . and profitable . . . **IDEA FILE**. This department, in each issue, describes and illustrates a number of pieces that printers have developed and sold to various business in their areas.

All are practical . . . each is adaptable to the same, or a related business, in your community. **IDEA FILE** tells you just how it's done. Here is what Ray Nunnery, an Oklahoma printer, said of a Danville, Illinois, printer's idea in **IDEA FILE**.

"We're going to get onto this . . . make it add \$100 a month to our volume without chiseling anybody to get it." That's the beauty of the ideas . . . they create **NEW business!**

Next month **IDEA FILE** will be back with many new and profitable ideas for you to use. **WATCH FOR IT!**



# G.P.O. IN TUNE WITH THE TRENDS

*Greatly increased demands upon the Government Printing Office facilities make modern equipment and latest methods imperative. Scientific cost accounting is now the practice* • By A. E. GIEGENGACK

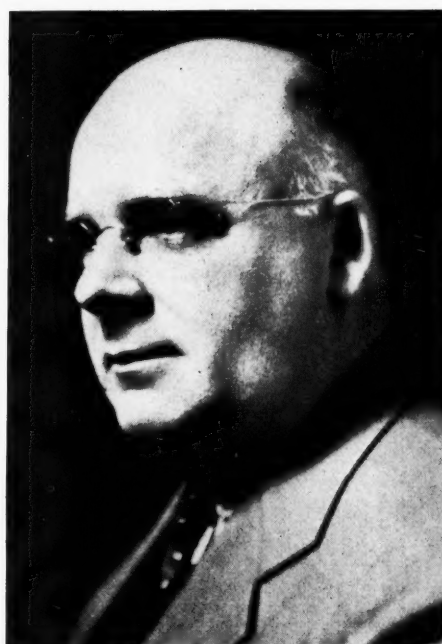
**K**EEPING PACE with the increasing tempo of developments in the printing industry almost necessitates one's putting on the fabled "seven-league boots," so speedy are the strides being made in the advanced design of printing equipment and the development of new processes and techniques. This is apparent when it is borne in mind that the greatest advancement in printing, as in other fields, has occurred within the present generation, principally within these last twenty-five years.

There appears to be a renaissance of long-established processes of reproduction in forms modified to meet new conditions. Of such nature is the progress made by rotogravure printing in monochrome and in color, familiar in some popular magazines and newspaper supplements. This is an adaptation of the older process of photogravure to the present demands for increased production speed and the use of less costly papers. Another illustration of this application of a long-established process to meet modern conditions is the planographic, or so-called offset, printing, which is the offspring of stone lithography practiced in printing's infancy. This process is now so greatly improved and so speeded up that it is now giving keen competition to typographic printing. The lure which this process extends is its relatively low cost due to simplicity of operation and the wide variety of suitable papers.

Chemical and physical research are producing rapid improvements in the agencies upon which the functions of printing depend. Metals, inks, and papers have felt the touch of science and profited by its removal of uncertainties and variables. Although the improved qualities of products fundamental to good printing have not

solved all of the printers' problems, they are smoothing the way.

This general progress and the prediction of its effect upon the printing conditions of the near future was reviewed in a chapter on "Communication by Printing and Photography,"



*Honorable A. E. Giegengack, Public Printer of the United States, past president of the New York Association of Printing House Craftsmen and the International Association of Craftsmen*

contributed by the Public Printer to the National Resources Committee's 1937 Report to the President of the United States. This complete report on the technology of leading industries was described by the National Resources Committee as "The first major attempt to show the kinds of new inventions which may affect the living and working conditions in America in the next ten to twenty-five years. It indicates some of the problems which

will come from the adoption and use of some of these inventions. It emphasizes the importance of national efforts to bring about prompt adjustment to these changing situations with the least possible social suffering and loss, and sketches some of the lines of national policy directed to this end."

Because of the expressed interest of the printing trade in the chapter on "Communication by Printing and Photography" it was reprinted at the Government Printing Office in a more convenient form for distribution.

The Government Printing Office, as the largest printing plant in the world, could not afford to lag behind in this parade of progress.

Some of these progressive trends within the Government Printing Office may here be touched upon for the readers of this unique September issue of *THE INLAND PRINTER*.

Paper products do not attain full value until used, so it is important to get the paper to the job in good condition.

Paper handled during the last fiscal year, in our office, exceeded eighty-three million pounds, thus the necessity of systematic, economical storage and transportation to the presses is obvious. To reduce losses, wooden cases have been practically displaced by skids. Open skids with sleigh runners have solved these shipping and

storing problems and have saved several thousands of dollars.

Use of non-returnable fiber cores, with detachable metal cones for paper rolls, has brought a decided decrease in the number of rolls to be rewound because of damages to the cores. The wooden plugs have a tendency to split and slip out allowing the ends of the cores to collapse.

A unique means of transporting paper stock from the third floor of the

warehouse to the second floor is provided in an automatic lowerator, which carries rolls of 100 pounds from the unloading platform to the paper storage near the presses. The rolls are unloaded from the freight cars onto a receiving platform and, under their own momentum, roll into the lowerator, the door of which automatically closes. The lowerator then drops to the second floor, where the door opens automatically and the roll, without assistance, leaves it. It then returns to the third floor for another load. A round trip takes only a minute. A 40,000-pound carload of postal card stock is delivered to storage on the second floor in forty-five minutes.

### Modern Cost Accounting

Another innovation has been the introduction of a scientific cost accounting system. Assembling the financial facts, so necessary to intelligent management and to proper billing of charges to the Governmental departments, has been under way for the past four years.

Cost accounting in the Government Printing Office is now a highly important part of its administrative functions. Its methods for ascertaining costs and controlling production are among the most modern and complete in the country. On the premise that each operation should justify its entire expense—and that the unit charges for billing should be based upon the average total costs of the units, determined from actual experience—facts are developed which permit the office to function both as an economical business institution and as a Governmental service agency.

The accounting system employed by the Government Printing Office is the punched-card method—commonly known as the electric accounting machine method. Cards are perforated by an electrical keyboard punching machine. The pattern of holes represents the exact figures or words contained in the source record. The punched cards are then used to operate electrical bookkeeping and accounting machines capable of perfect automatic sorting, multiplying, adding, subtracting, and printing the results in any desired sequence on prepared forms.

From actions and public statements, it appeared to be the opinion of some Governmental departments that the Government Printing Office could not operate as economically as commercial or private plants. This was fos-

tered by comparisons of charges rendered by the Government Printing Office with estimates made by private printing firms.

Inasmuch as no dependable facts as to the basic unit costs of individual orders were being compiled, it would have been impossible to establish a scale of prices based on a sound footing until a system was installed from which these facts could be learned.

our Office to spot certain operations which were not being handled as efficiently as possible and to make adjustments to remedy conditions.

The policy of adopting new processes and the replacing of wornout machinery in order to insure maximum production has been followed.

The bindery's ability to meet its special problems is shown by its overcoming the difficulty of cleaning ex-

## TYPE LAYOUT PLANNING RESULTS SEEN M

### ANNUAL REPORT OF THE PUBLIC PRINTER

1933

UNITED STATES GOVERNMENT PRINTING OFFICE

### ANNUAL REPORT OF THE PUBLIC PRINTER

UNITED STATES GOVERNMENT PRINTING OFFICE

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Modern faces give cover at the right decided display advantages over the annual report cover at left, intr

This was the major reason for the installation of the cost-accounting and production-control system.

Careful thought was given to the type and structure of popular cost-accounting methods and it was decided that inasmuch as the Government Printing Office was being compared with private and commercial printing firms, it was advisable to adopt cost-accounting methods comparable with those employed by the industry as a whole.

Thus, with the purpose of bringing the scale of prices more nearly in line with actual costs and equalizing the scale of charges for departmental work, the system was installed.

In addition to thus far accomplishing its chief purpose, it has enabled

cess imitation gold tissue from bookcases after the stamping. This work had always been done by hand and involved the expenditure of considerable time and effort. An ingenious adaptation of a flexible shaft and rotary disk for scouring the stamped image was devised to do this work, which is now being accomplished with more effectiveness and economy and with much increased production.

### Plate Standardization

There is a very decided turn toward standardization of platemaking materials and methods in the Government Printing Office plant. Ozokerite molding wax is bought on a definite melting point range specification; wax kettles and stripping tables are heated

by thermostatic controlled steam; a temperature controlled case-heating cabinet is employed keeping 100 full-sized cases at an even temperature of from 106 to 108 degrees F.; and automatic temperature control and charting of electrolytic solutions for plating is maintained. These solutions are analyzed by the laboratory and changes made to keep them in exact accord with standard conditions. The

duced. This process avoids abrasion due to manual scrubbing, thus improving the sharpness of the plates and tending to permit longer press runs. It also insures good adherence of the deposited nickel to the stereotype plate and saves time over former methods of cleaning.

Another trend is toward more modern devices and mechanical equipment for molding and finishing plates. A

becoming just as accurate as the steel back) together with a modern precision shaver, for accurate thickness, makes a printing plate which does not vary over one one-thousandth of an inch. This applies to curved work as well as to flat. As a result of all this new equipment, the quality of plates has been so improved that few recasts are necessary. Makeready time has been cut down considerably, resulting in savings which paid for the work in a very short time.

In electrotyping the question of installing copper oxide type of rectifier for the production of the high amperages at low voltages to use in starting cases in the preliminary plating solution has been studied. This is the newest thing to take the place of a motor generator in electroplating. It changes alternating to direct current at the junction of the copper and copper-oxide surface.

#### New Type Plate Curver

Installation of a new type of vertical curving machine for electrotpe finishing has effected a great improvement in the accuracy of the curvature of electrotpe plates and speeded production. It has also made it possible to simultaneously curve two document pages satisfactorily. This improvement saves makeready. An electrotpe wax-case, shaving machine, which has a heated cutting knife, replaced an older type shaver and produces a smoother wax molding surface than was formerly obtained.

Most of the stereotype work in the Government Printing Office plant is of a type best handled by the wet mat. It has been an interesting experience to apply dry mats very successfully to certain classes of work, especially book work, with considerable economy. It is hoped that ultimately some form of a dry or plastic mat can be used on all of the stereotype work in the plant.

One gas-heated pot, controlled by a Partlow burner, with a capacity of 2,000 pounds of metal, takes care of the flat casting. Another pot, electrically heated with a capacity of 10,000 pounds, supplies metal to the casting boxes for curved work. An interesting feature of this pot is a small motor controlling an agitation blade in the bottom which, moving very slowly, keeps the alloy constantly in good mixture. Thermostatic control allows careful check on the temperature at all

## SEEN MORE RECENT G. P. O. PUBLICATIONS

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graphite must meet a specified sieve test for fineness, ash, and covering time. Iron powder, for oxidizing electrotpe molds obtained in particle size passing a 325 mesh sieve, has speeded up this step in the process using only one-third the previous quantity of material.

In the molding process, there has been for some years past a growing demand for a new material of a plastic nature which approaches the quality of lead molding. Experiments have led to our adopting, for certain types of work, a recently developed, commercial molding material which consists of a thin coating of a synthetic wax composition on a sheet metal base.

A new method for cleaning stereotypes for nickeling has been intro-

duction to facilitate the work, and to economize in the production of stereotype plates for Congressional work, was the installation of six curved vacuum casting boxes for the *Congressional Record* and two for Congressional speech plates, as well as four vacuum casting boxes for book and miscellaneous flat work. Three combination shavers and trimmers, and two new roller matrix molding presses with additional drying units were also added. Though more costly than former types of equipment, they make for finer precision in plates and longer life in press runs.

It has been successfully demonstrated that the combination of the vacuum casting box, in which the mat is held tight against the box, (thereby



times with the standard formula being kept constant under the supervision of the laboratory.

It has been found that by adjusting the tin content of stereotype alloy, flat cast plates could be curved to make satisfactory runs on a rotary press, and several good-sized jobs have been carried through in this manner.

#### **Molded Rubber Plates**

One of the fundamental developments of the graphic arts about five years ago was the development of molded rubber plates for letterpress printing. Since then, the materials used in their manufacture and the process of molding have been appreciably improved and the press technique of properly using them has been perfected.

In keeping with our progressive policy concerning the adoption of new developments, a survey was instituted to determine whether it would be advantageous to use rubber plates in printing a large number of miscellaneous jobs regularly produced.

Rubber plates, because of their resiliency, find practical application on jobs where the stock being printed may be dented or damaged by metal plates or where the stock, in turn, may damage the plates. This is particularly true of certain made-up envelopes of fabric or heavy manila paper or tags, closure fastenings of which may strike the plates. As a result of this study, in 1937 a complete flexible rubber-plate printing system, including a fully equipped 24 by 32 inch precision vulcanizing press was introduced. This is the first time rubber plates were used in the Government Printing Office for printing envelopes, tags, and similar work. The resultant plates have proved highly successful on work of this nature and further applications are being found. The improved quality of printing of this type of work and the economy effected in reduction of repairs, which were constantly being made upon metal plates, have been highly gratifying. In addition to the use of these rubber plates on the presses, molds are made for producing rubber stamps for interoffice use.

So successful was the first year's operation of our rubber-plate equipment that it led to the reconditioning of one envelope press for use of this process exclusively. By placing a permanent steel saddle on the old cylinder, thereby increasing the diameter sufficiently to handle a plate 0.100 of

an inch in thickness, including the backing and adhesive, we are now able to make the plate without any mounting and to deliver it to the pressman to place in the proper position on the cylinder.

Considerable trouble was at first experienced with crushing of the type during molding. Improvements in mat materials and in experience have completely eliminated this trouble.

Marbled paper designs, such as are still used to protect the edges of many of our books, are printed from three-color plates by the offset presses. These prints are used as end sheets in the books to match the marbled patterns on their edges.

#### **Two Jobs on One Folder**

Quite recently there was introduced into the pamphlet bindery an innovation in folding that perhaps has no parallel elsewhere in the printing industry. A small friction feeder was purchased, such as is now used on Model E Cleveland folders, and after subjecting it to a few mechanical changes, made in the Office's machine shop, it was installed on the lower cross carrier of a Model K Cleveland folder. This enables us to run two different jobs on one machine at the same time. The upper carrier can run one, two, three, or four parallel folds; while the lower carrier, at the same time, can be running an entirely different job of either one or two parallel folds. There can be an additional angle fold, if desired. This attachment has now been in operation for some time with remarkable success. It is readily apparent how advantageous this is when it is considered that 60 per cent of all our folding work is in parallel folds, running on the upper carrier only, while the lower carrier is idle. Thus we are gaining an extra machine at a very slight cost without sacrificing additional floor space; and, further, this feeder is geared to the machine, requiring no additional motors or power, and does not interfere in any way with the original machine's intended uses.

#### **Type Director Added**

An important innovation in 1935 was the appointment of a director of typography and the reorganization of the layout section of the planning division for the purpose of modernizing and improving the appearance of Government publications with intent to create a greater demand for them by the public.

In the four years which have passed since the appointment of a director of typography, and the growth of this section, which now lays out all printing designs; there has been a decided upward trend in the general quality of the printing work of the office. On certain occasions, specific examples of creative expression have been brought out in de luxe editions.

#### **Staff Chemists Assist**

Our technical laboratory, manned by competent chemists experienced in the problems of printers, is doing much to assist the upward trend toward better printing products. Investigations are made of new products and processes with a view to determining their adaptability to the best interests of the Government's printing and binding program. It is also the function of the technical division to watch the quality of all materials and to compound the inks used, make the composition press rollers, and keep the metals in constant composition. In addition to this program of routine control, some effort is given to discovering the technical merits of new products.

Papers have been developed by the manufacturers to give smoother printing surfaces and to have better properties for absorption of inks. The scientific testing of these papers makes it possible to select those best suited to specific kinds of printing and to match successive deliveries in color and printing qualities.

The technical information accumulated from the investigation of printing problems and the overcoming of difficulties which often arise in the Government Printing Office, has proved an invaluable source of help to the printing industry at large. Each year several thousand letters of inquiry, from all parts of the country, are answered, to assist in the solution of printers' problems with advice based upon our own experience and knowledge.

A new trend in paper testing has involved developing laboratory methods for paper analysis with a view to their correlation with certain printing qualities of paper in order that its printability under given conditions may be reasonably predicted before printing.

Since the penetration of printing inks into paper depends primarily upon the physical characteristics of the ink vehicle, there have now been



developed oil-penetration tests for measuring the relative capacity of papers for ink-absorption. This test, together with that for determining the finish or smoothness by the standard air-flow methods of measurement, are two of the principal tests which offer a basis for forecasting the printing quality of a paper. They have been included in the specifications for most book-paper items.

Another property of paper affecting its printing quality is color. The color values of several grades of paper have recently been changed from a yellowish cast to a whiter shade. This change has applied to offset machine-finished book and supercalendered book papers. The printing on this whiter paper has shown a decided improvement in contrast to former printing done on less brilliant paper. The improvement in halftones due to this factor is especially noticeable.

#### **Laboratory Check-Up**

The principal and most frequent offenses which paper gives the printer are commonly known as strike-through, show-through, offset, surface picking, and uneven printing. These conditions are dependent upon the paper's opacity, oil-absorption capacity, and condition of surface sizing. In the Government Printing Office these properties of paper are studied with reference to their press performance and the laboratory measures them with instruments of precision so that they will meet the specified requirements before acceptance.

A special section for the remelting and reconditioning of type metal has been entirely mechanized with new equipment, some of which was specially designed by this Office to minimize manual labor.

Conveyor systems to carry the discarded metal to the melting pots and electrically operated pumps for filling the casting molds from the melting pots are of the most efficient design.

The discarding of brass leads and rules throughout the Office has effected saving in the cost of the distribution of type, and brought freedom from contamination of the remelted type metal with copper which occurred when stray pieces found their way into the melting pots.

Every ounce of metal which passes through the printing plant and is reconditioned is scientifically tested in the laboratory. It is brought up to the required standard by the addition of

tin or antimony when necessary before being passed back into circulation as new metal.

Progress and discovery in inks are possible in the Government Printing Office to a greater degree than in most places because all of the ink is made in our own plant.

For the War Department, special inks in many colors were developed

tion over a base roller of a tough and highly resilient rubber composition applied over the steel cores.

Another advance consisted in the making of cloth-covered composition ductor rollers in one-half and three-quarter lengths for use on web presses for half and three-quarter form. These rollers have been most satisfactory and have saved much over the old



*Striking exhibit showing how Government publications have stepped out these days. Handsomely bound and jacketed, these books are as attractive as the products of private presses*

to serve as bullet markers in target practice to record accuracy of firing and to identify the firing units making the hits. Special inks have been developed, through technical research, for the Treasury Department for protection against forgery.

#### **Research on Rollers**

Considerable progress has been made in the past five years in the art of rollermaking. Research has recently been conducted upon the use of Sorbitol, a hexahydric alcohol, as a partial substitute for glycerin, which at times may be unobtainable.

A process of rollermaking, new to this office, was introduced. This new process consists of a coating of a thin film of glue-glycerin roller composi-

method of cutting down full-size rubber rollers.

There has been improvement in the technique of handling the composition of rollers cast in gum molds and the manufacture of bindery glues. A new coupling with control valves of larger opening to connect the composition kettle with the roller gun permits the material to be forced by air compression into the mold with greater speed and less agitation. This avoids the formation of air bubbles at the surface of the roller.

In the line of new things adopted by the Government Printing Office, should be mentioned pyroxylin-treated bookbinding fabrics. Starch-filled fabrics have a disadvantage of not being waterproof nor verminproof.

The present trend is to replace starch-filled book cloths with these more durable recent fabrics. Specifications have been drawn around their quality and finish for standardizing the purchase of pyroxylin-treated fabrics. Considerable investigational work has been done in testing their properties both for comparative technical qualities and for performance in the bindery.

#### **Coöperative Effort**

Regarding bookbinding leathers, a coöperative research with the Bureau of Chemistry and Soils of the U. S. Department of Agriculture was instituted in 1935. Research work by the Bureau of Chemistry and Soils showed in laboratory tests that chrome-tanned leathers and combination vegetable chrome-tanned leathers are more resistant to acid rot than leathers of a straight vegetable tannage, the latter type alone having been used for our bookbinding.

Accordingly, specially made lots of chrome-tanned sheepskin leather were purchased to determine the possibility of its substitution in our binding operations in the place of the long-used, vegetable-tanned, law binding sheep leather, which usually lacks durability.

Research work on bindery pastes has led to the use of diethylene glycol as a partial substitute for glycerin in flexible glue formulas. Adhesives essential to bookbinding have been so improved as to reduce the tendency of papers and book covers to curl and warp by partially substituting other solvents for the water in the formulas.

The results of such research in the Government Printing Office and the formulas developed here are freely given to the printing trade through publication in the annual report of the Public Printer.

#### **Come to New York!**

As the chairman of this great coming event to be held in the Grand Central Palace of New York City during September 25 to October 7, it would not be appropriate to miss this opportunity of directing your attention to visiting this remarkable display of modern progress in printing.

It has been twelve years since the printing industry has held such an exposition. Compared with the machinery and supplies of the 1927 exhibit, the display this fall will appear transcendental and rather properly belonging to the "World of Tomorrow."

Herbert F. Czarnowsky, of Baltimore Type and Composition Corporation



## *The Trade Typesetting Movement*

*A development of comparatively recent years and one that has taken on many responsibilities in service to the industry*

• When trade plants first provided type on the galley, some authorities foresaw the doom of typographical standards. When makeup and then layout was offered, ultra-conservative printers insisted these plants should furnish type in galley form only. Despite these handicaps, however, the trade typesetter was rendering good service within the limits imposed by machinery and personnel and the needs of the printing industry.

Then almost overnight came a change. With the lush years of the late twenties, printing in general, and advertising in particular, received new impetus. Educated buyers of printing, aware of the sales possibilities in the printed word, insisted on effective design and layout. Type faces appeared in bewildering and expensive variety. Fast service, beyond the ability of most printers' facilities, was demanded. And equipment manufacturers were making tremendous strides forward.

This could mean but one of two courses for the progressive printer. He could load himself with expensive equipment and type faces (which might be outmoded the next month) and train men in the mechanics of good design and fast production. Or he could evade a considerable portion of such an investment and labor by making greater use of the trade plant. Naturally, the majority of printers wisely chose the latter solution.

Fortunately, trade typesetters were alive to their opportunity and respon-

sibility. The call for increased speed and broader service resulted in a general streamlining of trade plant routine, the gradual selection of the most skillful craftsmen, and the training or employment of layout experts. The most modern machines and accessories found their way into the trade plant where dependence on one source of income—typesetting—made it imperative that the work be done swiftly and well to keep down expense. And variety of type faces, made possible through wider spread of the cost, became an attractive feature of trade plant service. Now many printers depend entirely on the trade plant.

Increased use of offset and gravure has another channel of service for the trade typographer in the supplying of reproduction proofs. Still another testimony to the skill and resources of the trade plant is its gradual absorption of advertising typography. Today, thanks to the refinement of machine typesetting, the machine availability of many faces formerly hand-set, and the maintenance of high typographical standards, the commercial typesetter is entering more and more into the advertising typography field.

This, in brief, is the story of the trade typesetting industry. Where formerly the trade typographer was merely tolerated or ignored, he is now not only accepted but welcomed by printers who recognize in the trade plant a profitable adjunct to their business.—William E. Lickfield.

# CUT FIRST IMPRESSION COSTS

*Before the presses start, a large part of the cost of the print job has been incurred. Figures on many of these items can be reduced. Here are methods others have used which you can use* • By OLIN E. FREEDMAN

**M**EASUREMENT OF COSTS and determination of selling prices for production operations in the graphic arts industries are now almost universally based upon records and estimates of time consumed. As the result of the constructive work which has been carried forward by progressive trade associations, both local and national, no good excuse remains for any printing establishment to lack clear and precise knowledge of the cost, and requisite charge, for each productive hour.

The custom of considering production in terms of elapsed time has frequently blinded us to the fact that such an approach is applicable, with but few exceptions, only within the printing establishment itself. To the customer, it is—rightfully—meaningless. It irritates when forced upon his attention. He cares no more about printers' production time than the printer does about the time needed to manufacture a ream of paper, an automobile, or a loaf of bread.

Only the complete delivered product interests the customer. That is what he has in mind when he places the order, approves the bill, signs the check. It is an important problem and responsibility of management to see that each chargeable production hour represents a readily discernible value to the customer.

In the strictest sense, only when the presses roll does actual production of the tangible product begin. True enough, charges must be made for all preliminary operations, just as each automobile must bear its proportionate share of the cost of designs, dies, and patterns; but you can't deliver and bill a lockup or makeready!

In the made-to-order business of the graphic arts, these preliminary costs are excessive as compared with practically every other major industry, especially for small quantities. More and more, alert and progressive letterpress printers, observing how preparatory time is reduced in other processes, have successfully sought similar economies. These plants, pointing the way for others to sound,

economic values without sacrifice of satisfactory profits, have made *standardization* and *precision* their watchwords for better results.

Standards are not new to the printing industry as "133 line screen," ".918," "25 by 38," "ream," "pica" testify. Each of these terms, and



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many another, represents meanings universally understood within the graphic arts. Their value for basic understanding is inestimable; but it was necessary to carry standardization farther and apply these accepted measurements in their fullest sense,

and coordinate all production steps through adoption of standardization of methods, materials, equipment, and procedure. Such policies have been followed by some and have paid out. This is a self-evident fact. It may now be conservatively stated that from this an important trend has started.

Doubtless application of precision methods has always been the goal, even when printing was in its infancy. Thoughts about uniformity in type height and press accuracy probably engaged the minds of Caxton, Gutenberg, and other founders of our industry. Crude provision for leveling up the impression is found in their presses.

The modern trend toward greater employment of precision methods, however, may be said to date from 1895. That was the time when Theodore Regensteiner and his associates *proved with proofs* that the three- (later four-) color process was no mere theory, but a practical, workable fact. Pressed by customers to accept orders, these men were unable to find, in the printing plants of that day, presses which operated to sufficient precision to allow use of the relatively hard makeready required for proper reproduction of fine-screen halftone plates. Work was then being produced everywhere with a soft packing which served to compensate, to some degree, for the inaccuracies that prevailed in forms and presses and were largely accepted as matters of course. In fact, Mr. Regensteiner states that he was unsuccessful in his search for just *two* presses which would register, one to the other, with the hairline accuracy his plates demanded for proper results.

These are the reasons why the American Three-Color Company, originally founded as purely an art and engraving organization, was obliged to install its own pressroom. It soon became a dominant factor in the production of printing, and survives today in the mammoth producing plants of the American Colortype Company.



The Miehle Printing Press & Manufacturing Company's staff took an intense interest in the new problems presented by color process printing. They solved them, produced machines adequate for these needs, and made possible a vast addition to the printing volume. Today, precision standards govern all successful manufacturers of printing machinery and accessories for all departments. The machinery suppliers are doing their part well.

Further progress in reduction of preparatory time has come to rest very largely upon the shoulders of the printer himself. His problem has become one of making the fullest use of the facilities which have been placed at his disposal, but he will expect the continued assistance of his suppliers in his quest for still greater attainment in the promotion of efficiency and the elimination of waste.

Fortunately for the letterpress division of the graphic arts, most of the solutions to its problems lie within easy reach. The route to the goal is direct—no steep grades or detours. Leading plants which are far along the road in cutting preparatory time to a minimum have demonstrated its assured profit possibilities and shown the way for all who care to follow.

In letterpress, there are few, if any, technical secrets—probably none of importance. Those engaged in other methods of reproduction may befuddle customers (and sometimes themselves!) by talking up processes with trick names. They continue to seek new chemicals with new reactions, and procedures which can be standardized even from hour to hour. Through it all letterpress remains a mechanical, physical process, based upon proved fundamentals, unvarying, easily within the reach of all.

From the very start of a program of control it must be firmly fixed in mind that there are two ways in which work can be turned out. One—the hard way—is to give little if any forethought to problems until they will actually have arisen, and then to battle them through as best one can. Sometimes, especially to the youthful, there's something seemingly romantic about conducting a printing plant in a constant state of frenzy and brute force; but, in the long run, it's tough on the nerves, personnel, equipment, quality of the work, the customers, and—worst of all—the cost sheets.



Figure 1. Gages for checking and maintaining type-slug accuracy. One at left gages body thickness; one in use, height-to-paper. Applicable to linotypes, intertypes, ludlows, and material-casting equipment. Photo courtesy of M. & L. Typesetting Company

The other way is more profitable and will, after a short initial period, prove far less strenuous. If work is to be produced efficiently and accurately, some one who is competent must be provided with freedom, responsibility, and authority to think,



Figure 2. With this portable gage, designed especially for this purpose, each operator of a monotype casting machine constantly checks to be sure of his type's accuracy

plan, compare, and analyze. Such a person is enabled to schedule, foresee, and solve problems before they arise, and transmit instructions completely and clearly, well in advance, to those who will perform the work itself. Such provision is vital to the success of any such plan. A little advance thought is always essential. It will generally show up as more actual accomplishment than later abundant physical exertion—much of it misapplied and misdirected.

It must be remembered, too, that any program for reducing costs must be built on a very full realization of the inter-relation of all departments. Analyses of thousands of production losses clearly prove virtually all are caused by *preceding operations improperly or carelessly performed*. Too often they're the result of failure to provide clear and detailed instructions and copy at the outset. It is essential that every step be planned, scheduled, and accurately completed right from the start of every job. Slipshod methods, seemingly unimportant in the composing room, will often complicate matters right down the line in later operations and lead to costs many times greater than would have been incurred in providing against the original negligence.

In reducing the cost of operations prior to the first impression, there are two principal objectives to be constantly considered: (1) Elimination of waste in positioning forms, under the general heads of "lineup" and "register;" and (2) Reduction of makeready time, in the sense of bringing the form and press to readiness for running with all elements performing their proper functions.

It is in the original setting of type and assembling of pages or other makeup units that the first precautions must be taken. Slovenliness in this department will multiply difficulties as the work progresses.

All machine-set type will suffer in precision, uniformity, sharpness of face, and solidity of body in direct relationship to lack of checking and maintenance of the machines. Proper metallurgical and temperature control of metal, correct and thorough lubrication of machines, cleanliness, and replacement or repair of worn or damaged parts are, of course, the first essentials. But these alone will not yield the required degree of precision, and constant tests and unrelaxed vigilance are imperative.



In certain progressive composing rooms, all type set by machine is held within a tolerance of .0005 inch over or under standard height-to-paper, with all fine-faced printing rule dropped slightly below this height in order to avoid "punching" on the press. To hold this tolerance, tests must be made every few hours at the longest. Special gages for thus checking the output of slug- and material-casting machines (At left, Figure 1) and of monotype casters (Figure 2) are regularly employed. If such correctional action as is needed is taken promptly, these standards can be economically and profitably sustained continuously.

It is necessary that uniform thickness of type and length of slugs be maintained, especially vital that all variation of dimensions from face to foot and end to end be promptly corrected and all "bowing" of slugs be quickly found and fixed. Otherwise, correct, acceptable makeup, lockup, and press running will be impossible without much wasted time in attempting to overcome these faults later on. For these purposes, gages of the kind illustrated at the left in Figure 1 are employed. Inaccuracies corrected promptly eliminate bulging forms, workups, and the use of sinkers. Precision in lockup then becomes the rule—and trouble the exception.

Most foundry type is manufactured to a high degree of accuracy; but wear incident to handling, molding, and use on the press will eventually cause deterioration below acceptable tolerances. Then it becomes true economy to discard it. A good rule is to test all foundry type on a precision proof press and to throw out, before distribution, all which will not pass a rigid inspection of the proofs.

In fact, precision proofing of all matter, both in galley form and after makeup, will promptly divulge the presence of broken or sunken letters and of unsatisfactory casting of the face of the type. Corrections can then be made before matter is locked up for use. Adjustment of the machines can be made or attention given promptly to the matrices at fault. For best results from forms to be electrotyped, stereotyped, or molded in rubber, similar test-proofing of foundry forms and minute inspection of proofs are highly recommended. There is a limit to inaccuracies in the originals which can be corrected in the finishing of duplicate plates.

Of great importance, too, is the maintenance of all saws, mitering machines, and other such equipment in a state of high precision. Square mortises and accurate cutting of slugs, rules, and spacing material are essential for true economy.

All mounted plates to be made up with type matter should be gaged in the composing room (Figure 3) or sent to a pre-makeready department, engraver, or electrotyper for check of uniformity and correctness of height-to-paper. Any needed corrections or

prepared with accuracy, by one familiar with the mechanical operations and limitations of the composing room, time required for actual makeup will be very measurably reduced. Moreover, the job will usually be correct on first proofing.

2. **TRANSPARENT LAYOUTS**—Especially on book and catalog work comprising a large number of pages of uniform dimension, margins, running heads, and folio positions, ruled master layouts on celluloid or other rigid, durable, transparent material



Figure 3. With this plate gage, a precision height test at all points in mounted plates can be made before they are incorporated in type makeup. Later leveling up is avoided

remounting can be completed much more economically before such plates are incorporated in type forms.

When the foregoing precautions will have been routinely observed, it will be found that rapidity and ease of makeup will be greatly enhanced—and without sacrifice of the still requisite factors of precision and uniformity. The latter quality is of special importance on repetitive forms, in which the same layout and spacing materials are used over and over. With proper forethought, much can be accomplished prior to lockup, and the following steps and precautions are recommended:

1. **ACCURATE, SPECIFIC LAYOUTS**—It is much simpler and less costly to prepare precise layouts, especially of intricate forms such as broadsides, by working first with proofs, shears, and paste. Such layouts can be submitted for customer okay before makeup is started, thereby averting costly alterations in the made-up units themselves. When such layouts are

which is little affected by temperature or humidity changes are very helpful. Certain composing rooms and trade plants claim to maintain accuracy and uniformity within one-half point by using such layouts.

3. **MAKEUP GAGES**—Through the use of the makeup gage, results similar to the foregoing can be achieved, provided that gage layouts are prepared in advance. There is the added assurance of perfect justification of all elements; if makeup gaging is properly performed, there can be no doubt that every element will "lift." Moreover, complete squareness of makeup and dead accuracy of color register can thus be achieved. This is of special importance with elements mounted on wood. For one-color work, carefully calculated and cut blocks will sometimes serve this purpose satisfactorily.

4. **"DRY" PROOFING**—On work requiring a medium degree of register, it is generally an economy to proof the key form on opaque stock and



Figure 4. Well equipped photoengraving proofrooms foresee press problems and make possible the consistent production of satisfactory plates. Precision equipment at the Manz Corporation, Chicago. In foreground, two-color proof press; in back, precision proofers

then each additional color on glassine, or other transparent material. Then, all fitting can be checked before forms go to the stone. Obviously, it costs much less to make the moves required for internal register on the makeup bank than on the lockup stone or—most costly of all—on the bed of the press.

What is a proof?

Many in the composing room define it as merely a sheet, to be pulled on any odd stock with any ink at hand, in order to check spelling and see that copy is followed, or to substantiate charges for alterations. Or

a photoengraver may be prone to say that a proof is an impression to be taken with extreme care, on superfine stock, with full-bodied inks utterly unsuitable for regular production, for the purpose of showing a result vastly superior to that which could possibly be achieved when the cut is in a form and on the press.

Actually, a proof can and should fulfil a function transcending by far the former purpose and devoid of all delusions inherent in the latter. *A proof is a medium for basic understanding between the customer and all departments of the printing plant.*

When its fullest usefulness is thus understood and applied, its value and importance are tremendous. It becomes a vital instrument, not only in pinning down errors and eradicating "buck-passing," but also in creating and transmitting basic understanding by generating fundamental knowledge and agreement. If it be true that a good picture will tell as much as a thousand words, it is equally certain that a good proof is often worth pages of written instructions.

Since the basic purpose of proofs is the detection and correction of errors and misunderstandings, it follows that they should be freely employed—should be submitted frequently, at every stage of the job, with no effort spared to obtain prompt attention for them.

It is less costly and easier to make alterations in the galley than in the justified unit, cheaper in the unit than on the lockup stone, and on the stone than during makeready. Once the press is running, and good stock has been printed, alterations come highest of all! A firm policy of never passing work on to the next operation until the preceding one has been rigidly checked, and finally approved, will effect marked savings all along the line. Everyone will be happier, including the customer!

What else do properly prepared proofs do? Pulling them on a precision proof press of substantial size,



Figure 5. A satisfactory and adequate premakeready installation used with medium-size pressroom. Left to right, beyond lineup table in foreground, precision saw and mortiser, ink formula scale (on shelf), underlay paper cabinet with supplies, surface plates, work table, plate gage, block leveler, mounting and blocking table, and precision proof press at the Haywood Publishing Company, of Lafayette, Indiana

using the same stock and ink as will be used for the actual run, lets the customer see, in advance, precisely what he will get in the completed job. Type, halftones, color, and all other factors will have been agreed upon in advance. Improvements, corrections, and alterations will have been made economically, without tying up lock-up stones or holding presses. Register will have been checked—even

purpose (Figure 4) are available. Likewise, plates to be run together—in the same rows back from the gripper—necessitating the same fountain setting for all, can thus be proofed by the engraver for uniformity under identical conditions, and then corrected, as necessary, before molding or printing. Hours of attempting to achieve the impossible in the pressroom will thus be avoided.

also supplement the uses of the other equipment referred to later.

There is growing realization that best results in press makeready will be obtained if exactly half of the added impression required for heavy areas, or of the relieved impression for delicate subjects, is incorporated in the form itself with the other half to be in the packing on the impression cylinder. Precision proofing by a



Figure 6 The W. F. Hall Printing Company, of Chicago, Illinois, has a separate department which makes mechanical overlays for all forms

margins can be shown by trimming stock to size or, on book work, by proofing companion pages in pairs and with correct gutter margins.

With such a follow-through on proofing operations, each department, in turn, will know exactly what is expected of it and will be able to proceed promptly, accurately, and with assurance. Precision proofs should accompany each form sent to the foundry. Then plates of acceptable quality, as specified by the proof, can be demanded and obtained.

Proofing engravings for approximation of actual press results is extremely important. Possibly more customers have been disappointed when, after seeing truly lovely proofs of their plates, they find that these results are impossible of attainment in the pressroom, than through any other one cause. Coöperation of the engraver is essential. It should include use of the same stock, same ink, same direction of inking, and same film of ink as is to be employed for the press run itself. Work to be printed "wet" (multicolor) should be proofed wet. Machines for that

Careful analysis shows incontrovertibly that a special department for pre-makeready purposes, directed or handled by a competent man, has invariably proved to be a profitable investment, even in plants of relatively small size. Figure 5 is an excellent example. Such a department, preferably under the direction of a man thoroughly versed in pressroom problems, supports and strengthens all other departments at surprisingly low cost—a cost far less than the money value of economies effected. Such an installation may profitably incorporate the following:

**A PRECISION PROOF PRESS**—A machine of this type has various profitable uses. In addition to the many listed under the preceding heading, it will be valuable in checking the printing and register qualities of duplicate plates before they go to press, so that presses will not be obliged to stand while waiting for replacements. Particularly on delicately outlined color subjects much tooling and edging after plates are on the press can be averted by precision proofing. This machine will

skilled workman will enable him to determine the degree of correction required and to take these steps before an expensive press is tied up. Plates may then be ordered to specific heights, varying with the nature of the design. This is of special importance on unmounted plates in conjunction with the present tendency to dispense with interlays between plates and metal base. Or, if they are used, their requisite thickness may be determined from precision proofs. Then the interlays can be prepared and affixed to the back of plates before lockup.

Still another time-saving use of the precision proof press is in the preparation of mechanical overlays for makeready. Proofs can be taken of foundry forms and sufficient overlays completed while plates are being made, or for forms of type and mounted originals during lockup. In either event, overlays will be ready (See Figure 6) to accompany the form to press, thereby effecting obvious savings of time and money.

**A TYPE-HIGH GAGE**—This instrument is very useful in supplementing



the precautions taken in the composing room, and in maintaining a check on composition purchased on the outside. In many plants, however, it is safe to dispense with it, providing that previous checks on type are reliable.

sary to some extent, at least, in practically every plant, it becomes necessary to put mounted plates into the best possible printing condition. All such plates need to be carefully checked, even for reprints, though

up is most economically determined before they reach the stone. This is an important precaution for which a regular carpenter's square of good quality, used in conjunction with proper handling in proofing, will serve nicely.

**AN INK WEIGHT SCALE**—Tying up large production presses for mixing and matching inks is always costly. Special shades can be readily established on the proof press in the pre-makeready department. Then, a satisfactory sheet for matching will be available. If the ingredients are weighed and recorded, in the course of blending in the pre-makeready department, the proof can be sent to the ink manufacturer or ink room along with at least an approximation of the formula.

**A DEPTHOMETER**—Where a sizable amount of halftone printing is done, many have profited from standardizing upon specified depths of etching respectively for highlights, middle tones, and shadows in each degree of screen fineness, thus averting difficulties in makeready and also the necessity of washing out forms too frequently because of filling up from too shallow etching. The depthometer tests the depth between halftone dots; such tests are of special importance in passing on duplicate plates.

An added convenience in the pre-makeready department will be a cabinet equipped with sufficient individual shelves for assorted thicknesses of stock to be used for various precise requirements of underlays and interlays. Brush and paste should be near at hand. Also, an accurate stone or surface plate will be valuable in checking plates for rocking, type slugs for "bowing," and for many applications in which a smooth, level surface is required. Lastly, it is essential that, as in well regulated machine shops doing precision work, the various instruments themselves shall be checked occasionally for accuracy through the services of specialized testing laboratories.



Figure 7. Block leveler in use. When too high, leveler makes the plates uniformly accurate

**A PLATE GAGE**—It is difficult to test mounted (or even unmounted) plates thoroughly without the help of this practically indispensable instrument. With it, high and low spots and other lack of uniformity can be readily detected, and all correctional steps can be checked as they are made.

Another important use for the plate gage is in the checking of patent base equipment. This should be done regularly. No amount of accuracy in the unmounted plates themselves will be of very great value unless the base used is accurate. Fortunately, metal base machined from tougher alloys is now replacing much of the older kinds of die-cast material, but periodical checking of all base is strongly advised. Manufacturers will cooperate in suitable correctional steps when the need becomes apparent, although nothing can be done with base which has been allowed to deteriorate too badly except to discard and replace it.

**A BLOCK LEVELER**—Wood has never been, by any means, the perfect material for mounting plates for printing. Even the best laminated blocks are affected to some degree by changes in humidity and temperature. Since, however, use of wood-mounted plates continues to be neces-

it may be but a comparatively short time since they were mounted. If they are perceptibly warped, remounting will probably be necessary. If they are too high, the block leveler (Figure 7) will bring them down accurately and uniformly. Similar treatment will usually solve the problem of unevenly mounted plates and stop their tendency to rock. If plates are too low, they may be underlayered, although it is frequently preferable to remove them, when possible, from the block, place an interlay between plate and wood, and then bring them to the exact desired height with the block leveler. As with unmounted plates, consideration should be given to varying heights, adjusted to the nature of each specific design.

**A STEEL SQUARE**—Squareness of all elements to be assembled in lock-

*This is the first half of Olin E. Freedman's authoritative article on pre-makeready. Space limitations this month forced THE INLAND PRINTER to make two installments of this complete discussion of methods and equipment for pre-makeready. The next issue will have the final section. Together, they make a veritable textbook on this vital subject. Be sure to read the final installment. Like this one, it shows how to save money!*





## Typographic Clinic . . . A Resetting by BEN WILEY

It is rather difficult to see how a handbill scattered promiscuously on the streets fits into an advertising campaign for an airways concern. Here, however, is a sample of printing commonly called a "throw away" which in appearance is far below any piece of advertising the writer has seen used to advertise air travel.

The original is 6 by 9 inches, and no doubt was produced on short notice, but limited time is no excuse for turning out even a handbill such as this. There is no continuity in the arrangement of the various groups of type; selection of type sizes was such that there is very little contrast or "punch," which is necessary in such advertising; there is no semblance of shape or pattern—you cannot find two lines of type of the same length; and last, but not least, the distribution of white space is very poor.

Regardless of my ideas about air-travel advertising, it is assumed the Braniff people wanted a handbill quickly. Within sixty-five

minutes from the time the original specimen came to hand, the resetting had been planned, put into type, and locked for the press. I believe the reader will agree that the half hour or so of time used for planning was more than well spent.

Copy like this is a problem to fit into a desirable shape because it is all display. When there is no story to be carried as text, the element of a shape-building body in the printed piece is almost gone.

The first question to be settled was what would be the "punch" line of this all-display piece. In the original, the "30%" was given undue prominence because the former price was not given, so 30 per cent meant very little. Even if the former rate had been given, the man on the street would not have taken the time to make calculations. It seems better to impress the reader with a "punch" price than to "scream" at him with a big "30%" which hints that he had better stop everything and start figuring—but from where?

Some readers no doubt would have made the first line, "Air Fares Reduced," the largest line, and the writer will agree that such a handling would be correct. But from the standpoint of design and appearance, the size shown in the resetting best fitted in the shape which was determined by the length of the lines "Chicago and Kansas City" and "Braniff Airways."

It will also be noted that in the resetting the first three lines present in a more readable manner the information contained in the first three disconnected units of the original.

However, this is still a throw-away handbill, intended for distribution to people walking on the street. Experience has shown that such pieces do their best work when handled in a so-called ballyhoo style, with bold type and punch headline or price. The resetting is offered as a demonstration of what can be accomplished in appearance when a little additional time is spent in study of the copy and planning its shape.

● Let no rash gambler ever again challenge us to show him a leading printing and publishing organization that has rolled from its presses a single piece of self-promotion as effective as the best it has produced for a customer! With devastating calm and assurance, we will immediately lay before him, from THE INLAND PRINTER Library of Specimens, two—not just one—but TWO superb, new, breathtaking answers which are recent as the latest Hollywood film spectacle! One would be the handsome and brilliantly impressive book produced by the Western Printing and Lithographing Company, described on page 37 of THE INLAND PRINTER for June, this year. The other is the recipient of our warmest praise and hearty congratulations this month. It is *A Candid Camera Story of a Modern Printing Service*. The service whose story is so eloquently portrayed in sixty-five superb Leica camera shots by Otto Hagel—ace camera man for “Life”—and terse, cleanly written captions, is the work of the J. B. Lyon Company, of Albany, New York.

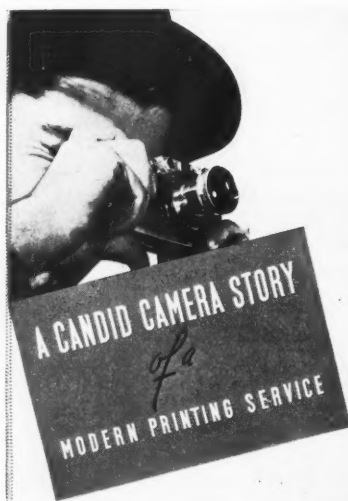
It would take a Solomon of printers to pick the winner of these two!

Though the J. B. Lyon Company is sixty-three years old (it was founded in 1876), the story wastes no words nor camera film on the past! We sensed that it wouldn't as soon as we saw and felt the thick sheet of glistening, transparent plastic material that protects the cover of the 12¼ by 17 inch book.

What more strikingly up-to-the-minute bid to a tour of a great, modern printing and publishing service could be offered than the cover shot of the candid photographer at work? Attention . . . camera . . . ACTION . . . and we're off! Thirty-six fascinating pages . . . sixty-three behind-the-scenes shots ranging in size from full pages to a 2 by 2¼ inch halftone at the very end which, appropriately, shows the photographer posing two of his subjects—hand compositors at work at their type cases.

Red is the second color used in this masterpiece of institutional advertising. The cover, which you see before you, carries the first and second lines of the title in reverse—white in a brilliant red panel. The script lettering of the third line is in black. Several of the halftone illustrations are combination red and black halftones. One picture is effectively printed in red only—the motorcycle delivery man

# ★ The Specimen of the Month



dashing off to meet an emergency, like a fire department truck off to the scene of a big fire.

It would be a privilege and a pleasure to take THE INLAND PRINTER's readers, page by page, on the tour of the J. B. Lyon organization and facilities—from its New York City office in the Grand Central Terminal Buildings to the shipping room in Albany, as the book does. But space limits restrict us to hitting some of the high spots in the candid camera story.

In a galaxy of beautiful double-truck layouts of heroic-size pictures and little copy, it is difficult to pick the brightest stars; but one of our favorites is a spread with a single word of copy. The word is “Foundry”—in red letters two inches high. Four portraits of craftsmen on this page are worthy of entry in anybody's camera show. More than that, the attitude of absolute confidence in their skill and the story of experience revealed in faces (and even expressed in their hands!) do a first-rate selling job.

Another double-truck spread that is a contender for top honors in the series of them is one that tells a running story of platemaking in a sequence of five dramatic shots.

“Careful adherence to rigid standards of production and the use of accurate testing apparatus,” says the copy on the left-hand page, “assure a high degree of platemaking perfection.” Two close-up shots of skilled platemakers at work testing plates are staggered on the page. Opposite, are three more action pictures of platemakers at work and a brief bit of copy explaining that “exact operations of molding . . . depositing copper, routing, shaving, blocking and curving electrotypes . . . are a part of the printing production process.”

We could continue citing specific examples of the dramatic and thoroughly masterful manner in which striking candid photographs of men and women, executives and craftsmen, of office, warehouse, and delivery staffs along with brief, explanatory copy tell the story of the company's service. But suffice it to say, the conception of the book by J. B. Lyon Company executives, photographs by Otto Hagel, art direction by Mary Hartzell and Jack Selden, engravings by Austin-Empire, Incorporated, of Albany—everyone who contributed layout, copy, or art to this magnificent piece of work deserves a great, big hand from the printing industry.

On the last page of *A Candid Camera Story of a Modern Printing Service*, the narrator, whose lines before have been very brief, steps out in front of the curtain and makes a neat talk. It gives the "whys" behind the story. There is food for thought in it for any printer planning sales promotion literature for his business—as well as a word picture of the scope of J. B. Lyon Company's service. Here is what he tells his audience:

"If you have enjoyed this picture story of a modern printing service, you might like to take a few moments more and step behind the scenes. When we started considering the possibilities of promotion, we decided to first study all the promotion being done by printers. This research job convinced us that practically all printer's promotion can be classified under the 'chest thumping' or 'we sell diamonds' schools of advertising. Frankly, we were discouraged because we never wanted to be the biggest of anything and we realized that a good sound printing operation must sell more than 'diamonds.' Our next step was to make a careful study of the customers that we are now serving, and here is what we found. Last year we served over one hundred buyers of general printing, ranging in quality from a beautiful children's catalog for Lord & Taylor to the smallest type of folders and booklets. This study showed us that we are now doing almost every type of commercial work. We found that we are now printing over fifty nationally distributed magazines and that, during the past year, we continued to be the largest printer for the state of New York. This study made us very proud of the large number of careful buyers that we are now servicing and made us more determined than ever to always keep as our constant goal, a satisfied customer. That conclusion resulted in a confirmation of our belief that the best printing job is one that brings the best results. Briefly, our viewpoint can be summed up in the fact that we are constantly striving to give better quality and service, considering the materials that are furnished and the schedules under which the work must be produced. If this book has been successful in getting across to you some of this viewpoint and a little better understanding of the steps a printing job takes before it reaches its final destination, then we will be very well satisfied with the time and money expended."

## IS VACUUM PRINTING ON THE WAY?

*Reports from Europe give details of letterpress printing from thin rubber surface held to the type form by pumping air from the chase*

**E**VEN VACUUM has played a part in the printing revolution that has come in the twentieth century. Almost unnoticed, the nearly forgotten Leiger air-suction automatic feeder was advancing the sheets to the guides on a large cylinder press of a leading Chicago printing plant way back in 1905 while pressrooms of the United States were still filled with combing type feeders. The successful tryout of this vacuum feeder made possible the successful development of the modern automatic feeders, now so common. Without them, we could not have our fast automatic cylinder, job cylinder, platen, and sheet-feed rotary presses, not forgetting the offset press. These faster presses could not be operated at the higher speeds until the vacuum feeders were developed. Their arrival put hand feeding out of the picture.

Now comes the report that vacuum printing is being practiced in Europe. Here is the method: The regular typographic form is locked in a chase in the ordinary way. Over the form is placed a sheet of resilient rubber which is secured hermetically to the chase. The chase is connected to a rubber tube, which in turn is connected with a special pump. The pump, in operation, draws all the air from the chase, forming a vacuum, so that the rubber is under exterior pressure all over the surface of the form. Under the pressure and suction of the vacuum, the rubber goes into the cavities of the form so that the cameo relief surface of the type and cuts shows in clear impressional outline in the rubber.

With this rubber-covered typographic form, the letterpress printer may print on all surfaces for which rubber forms have proved most suitable without rubber stereotypes or the equipment for making them. Make-ready cost is diminished and ink consumption decreased.

A detail outline, translated, explains: 1. Over the entire surface of the bottom side of the chase is made a groove to the depth of 5 mm. into which is inserted round rubber 10 mm. in thickness, so that when the chase is set on the bed of the press, air will not be admitted underneath it; 2. through the top side of the chase are bored a number of holes, preferably three on each

side (depending on the size of the chase), through which screws join the chase tightly to the bed, so that the rubber lying underneath the chase will be held against the bed and air prevented from entering from any side; 3. through the front side of the chase a hole is made through which passes the tube of the pump which draws out the air. This tube is connected to a steel rod, one end of which is fastened to the chase and the other to the press so that when the press is in motion, the rubber tube will not become disconnected as might happen if the tube were not supported. When the press is in motion, the rod turns and the rubber tube with it so that there is no danger of disconnection. Countersunk screws hold the chase in position on the bed.

The pump is installed under the front end of the press and consists of electric motor and pump proper. During printing the motor continuously operates and the pump draws out the air which here and there may enter under the rubber and make impossible complete vacuum. On one side at the top of the pump is the rubber tube which, by means of the steel rod, is connected with the chase, and on the other side is a gage indicating the air pressure. Handling the pump is simple and easy. Before the pump has evacuated the air from the chase, the gage indicates strong pressure, which gradually is reduced and becomes normal. By regulating the speed of the motor, the evacuating action of the pump is increased or decreased in accordance with the requirements.

It is naïvely stated that the ink is strongly diluted and contains a large amount of driers so that the print dries instantly. Furthermore, it is said to be specially prepared for use in vacuum printing only. (Probably an anilin ink in volatile solvent, such as is commonly used with rubber forms in anilin printing, carried and applied by a few rubber rollers, supplied by a covered fountain.)

We frankly concede that this is an interesting invention, but at once arises the question of its practicable scope. When a new process is invented, its inventor is fired by enthusiasm, needed to sustain him and to interest practical souls. Follows the tedious development



of the idea into a working model, aided and abetted by engineers and practical printers, perhaps. At last, she works. Not infrequently, "angels" are interested enough to put up the "do-re-mi" and organize a company to push the new process or machine. Then, finally, the brain child is put into production and placed on the market. After all this, there comes the acid test—user acceptance, or the reverse. Here is revealed the occasional success and innumerable failures.

This latest report of a new use for rubber recalls the fact that in printing the oldest use is a sheet of rubber, straight or modified in some way, in the packing. It saves makeready on some grades of work. In the final analysis, however, it is found to thicken the lines of the impression. Then came the use of rubber in offset printing, a process first used for tin decorating. In offset a so-called rubber blanket catches the impression on the fly and transfers it to another surface. This was being done in Europe almost a century ago. Later came printing from rubber forms on letterpress machines.

It would be a waste of time to discuss these methods in detail since they are well known. The first method is used in letterpress and gravure. On fast newspaper presses, cork is sometimes substituted for rubber. We are printing on air, to a certain extent, when printing on cork, because it is very resilient and swift to recover after impressional impact ceases.

But getting back to our original topic, where will printing from rubber, in the grip of vacuum, be used? Again the answer seems to be on a limited range of work that is not of the highest grade. No argument is needed to show that a film of rubber over fine type and screens will not make the lines and dots finer. Thus, the limited scope of the new process is at once defined.

How long will this thin tissue of rubber print before it is cut through by a cameo relief form? What about sharp rules and isolated ones surrounded by wide, open spaces?

There is a printer in France, who is turning out beautiful work from a rubber printing cylinder turned true, inked by a true cylinder of steel, still another way of using rubber to print. Perhaps all these tryouts of rubber, with the others to follow, will bring something decidedly better than we have so far evolved.

In conclusion, summarizing on the subject of printing with rubber may

be useful to the many printers and others interested. Here is the picture:

1. Rubber in the packing, while it saves makeready on certain papers, is more valuable where a slight broadening of lines and dots in the form matters so little it is not worth considering. This broadening may be held at the minimum by interposing a material like nitro-cellulose between the rubber in the packing and the form.

2. Rubber forms, either hand-engraved in hard rubber or softer rubber stereotypes, are a valuable substitute for metal forms for many purposes, up to a fineness of 100 line screen. Finer dots will not withstand impressional squeeze.

3. The offset process utilizes rubber to best advantage because the metal plate carrying the image is planographic and so the impressional squeeze broadens the image imperceptibly and the transfer from rubber to paper, also from practically a plane surface, does not perceptibly broaden fine lines and dots.

4. The French printer referred to in this article who prints from a true rubber cylinder, inked by a true steel cylinder, has refined method No. 2 above.

5. Vacuum printing interposes thin, resilient rubber between the metal, wood, or other form, and the surface to be printed. Here, as in all methods of using rubber to print, the impression must be regulated to a nicety and the set of rollers maintained light to hold the swelling of the rubber at the minimum. In all cases where rubber is used, swelling must be considered and provided for. In method No. 4, because of the precautions taken to obtain true cylinders, results are uniformly good.

★ ★

### Sample and Sell

Make one job of printing sell another, says the Graphic Arts Association of Grand Rapids, Michigan, in a recent bulletin, and it passes along the suggestion that when regular envelopes are printed, a few air-mail and window envelopes be printed at the same time and sent along to the customer. He might be stimulated to new activity by envelope uses he hadn't thought of. The bulletin also suggests that letterheads be proved on several different grades of paper. It's a good idea to let the customer see as many samples of your ability as possible. The more sparks, the better is the chance of striking fire.

## 'WAY BACK WHEN

Excerpts from old files  
of THE INLAND PRINTER



With our improved air-spring we obtain a rate of speed at least *one-third faster* than is possible in a press using the wire spring. The value of this invention, together with our patent delivery geared sliders and other improvements, is no longer disputed by competitors. C. B. COTTRELL & Co.

—October, 1883.

There was a man in our town  
Who thought him wondrous wise;  
He swore by all the fabled gods  
He'd never advertise.

His goods were advertised at last,  
And thereby hangs a tale:  
The ad. was set in nonpareil,  
And headed "Sheriff's Sale."

—October, 1886.

Transparent coverings and permanent glossy appearances can be imparted to prints, photographic or otherwise, by just mounting them on wet cardboard and applying an emulsion composed of three ounces of white glue, eight ounces of soft water, half the white of an egg, ten drops of glycerin, and three grains of French chalk heated until thoroughly dissolved.—August, 1887.

Remember that half-tone reproduces form and not texture. Wood, copper, and steel-plate engravers use different formulas of lines and dots to express different textures. For instance: A placid landscape can be made interesting by the use of these methods because the sky, land, leaves, and water are expressed in different ways. Not so with half-tone. Everything in such a picture being shown by lines or dots, a placid landscape becomes absolutely dead by the time it has gone through the half-tone process. S. H. HORGAN.—June, 1894.

Copper half-tones—12 cents a square inch. Finest half-tone plates engraved by the new Geleto-Carbon Process. Specially deep and easy to print. Send photos or drawings and get sample plate. Zinc etching; wood and wax engravers. ELECTRIC CITY ENGRAVING Co., Buffalo, N. Y.—April, 1896.

The new devil was on the job and was busily at work learning the case. The foreman noticed that occasionally he would fling a type out of the window. Finally he went over and asked the boy why he was doing it. The reply came back confidently, "Some of these things are no good. They ain't got anything on them."—October, 1912.

Type that can take any curve, slant, or other position and lock up the same as an electrotpe has never before been at the printer's command, but has now been invented. It consists of a cylindrical body with four corner-pieces to make it square. Each corner-piece has two straight sides, forming a right angle, and one curved side fitting the curve of the type body. . . . The inventor, Philip B. Barnard, is a commercial artist of Chicago.—November, 1900.



By J. L. Frazier

# ★ Specimen Review ★

Items submitted must be sent flat, not rolled or folded. Mark "For Criticism." Reviews cannot be made by mail

SANDS & McDUGALL, of Melbourne, Australia.—When the artist whose painting you use for an outstanding calendar illustration writes his commendation of the printing job on the picture—that's news! H. Septimus Power, painter of the two brilliantly colored macaws (parrots to us!) has written on the calendar, "A highly satisfactory production." To that, we can only add our lusty "Amen!" with a special postscript for the increased brilliance given to the calendar by overprinting with varnish.

MILLS PRINTING COMPANY, of Fort Worth, Texas.—Far more effective than a conventional blotter, to call attention to your steel die-cutting service, is your own die-cut in the shape of a fish. We like the slogan printed in dark blue at the top, which is particularly "pat" in tying in with the idea. It reads: "We Are Fishing for Your Business—for BAIT We Are Using Quality, Service, and Satisfaction." The originality of the idea and the neat job of die-cutting should help bring in some good additional business.

IRVING ROSEN, of New York City.—Congratulations on a fine job of printed promotion for the Fur Fashion Show and Exposition of 1939. Each in its own field—the "Promenade of Style Program," the several pieces that accompanied it, and the 182-page book of general information and advertisements of exhibitors

—is representative of the better class of work done in this field. The "World of Tomorrow" theme, borrowed from your city's big show, which runs through all the material, makes a good device for tying the various pieces together in the group.

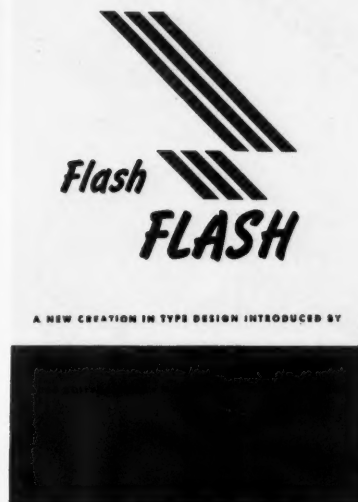
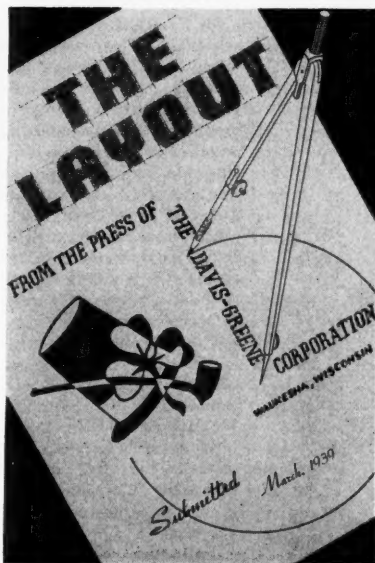
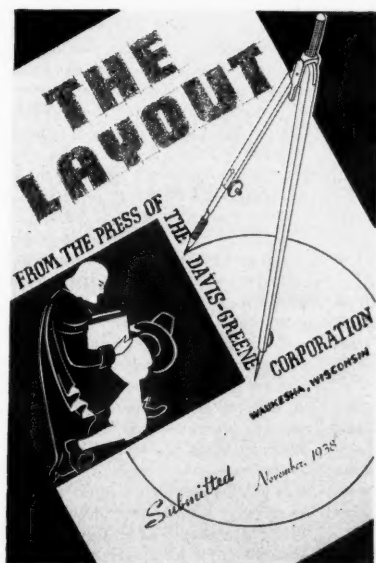
THE YORK CLUB OF PRINTING HOUSE CRAFTSMEN, of York, Pennsylvania.—Your club program for the coming season, "all done for the joy of the York Craftsmen Club," as the back cover says, is as fine a labor of love of its kind as we have seen. Congratulations to Nelson Horn for the strikingly beautiful front cover in silver, blue, and black and to Howard N. King who designed and created the 5½ by 5¾ inch booklet. Gene Schuman who did the presswork and the binding, as well as all others who contributed to this handsome dress for the record of the club's coming events, deserve a big hand.

YALE UNIVERSITY PRESS, of New Haven, Connecticut.—Your book "Type and Borders" befits the splendid and long-established name which the Yale Press has as a leading printer of fine books. With provision for inserting or removing pages, the book is as practical as it is attractive. Your method of first showing a page with the characters in upper and lower case, small caps, *et cetera*, in a given size and then following it with a full page of text is worthy of adoption by other establishments.

Another excellent feature is the type-fitting information given at the bottom of each page of the specimen set-ups.

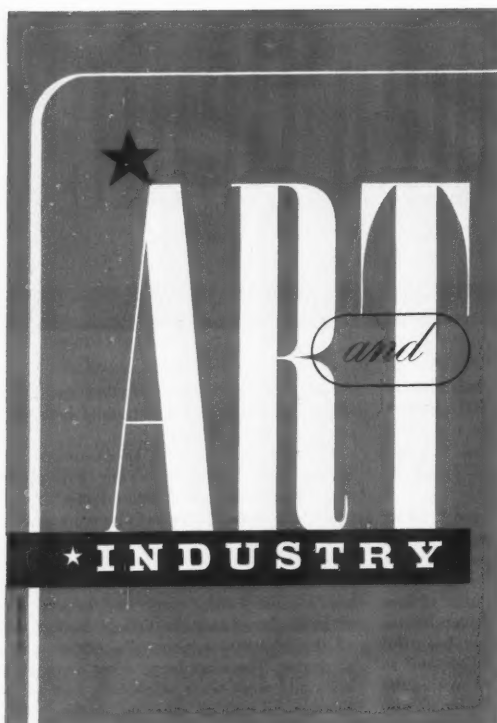
GOLDSBERRY-SPANGLER, INCORPORATED, of Kansas City, Missouri.—Your five pieces sent along with your recent letter are all good. We want to especially congratulate you, however, on the idea of putting your salesman's name on the blotters. The one that reproduces your firm's card with the salesman's name (white card, with brown type, at an angle against the orange background of the blotter) is unusually effective and attractive. There are many other ways printers could work their salesman's names into blotters as well as other promotion pieces and thus get increased advertising value from them.

RUFUS H. DARBY PRINTING COMPANY, of Washington, D. C.—It always is a pleasure to see a progressive printing organization advance to the stage where it has its own monthly publication to keep regular contact with all its customers and good prospects. That's why we were pleased to get Numbers 1 and 2 of your new, house-organ type publication and for another reason. That reason is your *Planned Printing*, true to its name, has started out to do a really creative job in showing advertisers how to get better results from their printing; first, by telling them,



Covers (6 by 9) of two issues of house-organ, "The Layout," published by the Davis-Greene Corporation, of Waukesha, Wisconsin. Right—March, 1939, number in two tones of green on buff stock. Left—November, 1938—brown and gold on white stock. Page readings are in color

Cover (5½ by 8¼) of folder introducing Flash type. Decoration and bottom panel in dark brown against light buff. Copy black



Jean Picart Le Doux has symbolized the union of art and industry in this magazine cover. Red is the background color. Key words, small star, bent border white—rest in black



This interesting type-pattern on program cover for Craftsmen's Conference has the upper left to lower right diagonal in orange, with the insignia, and rest of the copy is in black. Stock is rather heavy, buff color. Size is 6 by 9

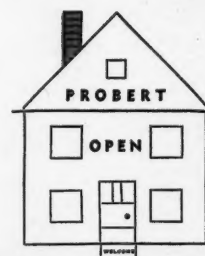
and then by showing them, each month, reproductions of good enclosures, mailing pieces, and other specimens of advertising.

THE KALKHOFF PRESS, INCORPORATED, of New York City.—Your fine series of blotters with the family title, "I AM NEW YORK . . ." illustrating several well known structures in the city of New York, should strike a responsive note among dwellers in your metropolis. Upstate prospects and customers, and out-staters too, will appreciate the excellent wood-cut style drawings and the brief descriptions of the scenes. Your institutional copy tie-in, the last paragraph of copy on each blotter, is well handled. The blotters are decidedly conventional as to size and shape (3½ by 6), layout, and typography. But there is simplicity and dignity in keeping with the copy. Blue and black are the colors for the illustrations against a light buff background.

THE HAMILTON PRESS, INCORPORATED, of Danbury, Connecticut.—As matter-of-fact and as common-sensible in copy and layout as its title indicates is your promotional piece, "A Story in Black and White." This printing, in booklet form, of your eight ads in the series called, "Behind the Scenes at Hamilton's," which appeared originally in the Danbury News-Times, is dressed up with borders of gray-toned news matter to give the effect of the ads having been clipped directly from the paper. Adding a first page of introduction and a final four pages of halftones, on enameled stock, as representative of work you have done for local and nearby companies, completes the job, together with the simple black cover with its title in reverse on a silver panel. Printers who have had campaigns in their local papers could profitably adapt this idea.

M. F. MCGREW, of Crafton, Pennsylvania.—"We are advertised by our loving friends," is an old-time advertising slogan to which you have given a neat, modern twist by letting professional commentators, including this editor, speak for you in your booklet *Quote*. Telling your prospects what we think of your own advertising for your own business, by reprinting excerpts from Specimen Review and similar departments in other printing journals, is a subtle way of letting them know what you can do for them with their advertising. The way you put the credentials up, in the vest-pocket size, 4 by 5½ inch, booklet with the single work "Quote . . ." embossed on the cover is effective. We note from your two-color and black ad on the last page of the eight-page booklet that its publication marks the first anniversary in your present shop. Best wishes for another fine year!

HONOLULU CLUB OF PRINTING HOUSE CRAFTSMEN.—Last month, we reviewed a specimen copy of "Kokua," official journal of the Honolulu (Hawaii) Club of Printing House



**PROBERT OPEN HOUSE**  
203-7-9-11 SOUTH LUDLOW STREET  
DAYTON, OHIO

**Thursday, June 22nd, 1939**

EARLY AFTERNOON UNTIL LATE AT NIGHT  
Refreshments • Cards • Entertainment

IN appreciation of the cooperation our customers and friends have given us in our efforts to give the printing industry of Dayton a GIANT composing room, we are having OPEN HOUSE at our plant, where you can see how we do it, and where we do it . . . and at the same time look over our equipment and enjoy yourself . . . relaxing a bit from the cares of your own business.

We want you to bring your customers or interested friends along with you . . . they are certainly welcome. Bring any of your associates, your employees, foremen, etc.

Our new type specimen book will be available at this party

Pass the word along: OPEN HOUSE at PROBERT'S  
**KEEP THIS CARD SO YOU WILL NOT FORGET**

Probert Company, of Dayton, Ohio, got up this clever invitation to its open house. Picture made with rules

Craftsmen, which was cleverly put up in a cover made to resemble a box. It announced a visit to a paper-box factory. So when the July issue of "Kokua" came, the pages and the covers die-cut in a barrel shape, front cover a drawing of a barrel—complete with hoops, bung-holes, and stoppers, we jumped to the conclusion the next inspection trip had been to a cooperative plant. We were all wrong! Opening the barrel (turning the cover), we read that a barrel of fun was on its way to celebrate the third anniversary of the founding of the Honolulu Craftsmen's Club with entertainment, food, and all that goes with the celebration of a big event. Getting back to the barrel, it was die-cut to shape.

BUSH-KREBS COMPANY, of Louisville, Kentucky.—Your blotter graphically gets across a constructive sales story by putting the advertising copy in the space of a ruled form like that printed by wax-engraved plates which you use to print ruled forms for your customers. We confess we were a little puzzled to know how to read the copy at first, what with practically every word in a separate box formed by the intersection of the vertical and horizontal rules, but that is a sample of the penalty one must often pay for pioneering with a new idea. We got along all right, though, when we read straight from left to right, ignoring the rules. We found good advice to buyers of printing, too, in your counsel which says, "Plan office blanks so the paper cuts to save waste. Design

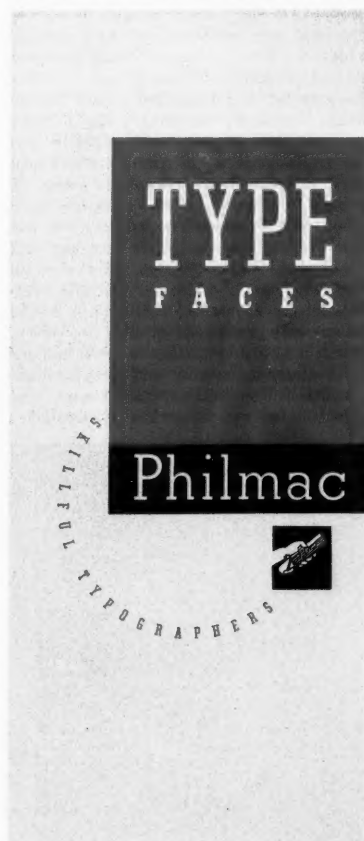
blanks to save waste of time by your office employes. Talk with us or your printer and when sure the copy is correct, cut cost on your printing bills by using wax plates to save. TOTAL \$\$\$."

THE STRATHMORE COMPANY, of Aurora, Illinois.—The makers of Safe-Way chicken food should and we feel sure did rise up and call you blessed for the swell job you did on the booklet "Poultry." Through interesting layout every page is eye-arresting, interest-compelling. Type-matter and page headings, sometimes reverse color panels, are in deep brown with rules, stippled decoration around the reverse panels and subheads sometimes in orange. Labels and a chick cut here and there are yellow. On the face of it, one would think the effect on India stock would be too warm. Artistry is exhibited in the combination—the brown, very deep, predominates, and the yellow is but occasional. Our only criticism is that some of the small subheads in the orange border are a bit weak (though not objectionably so, as they're set in bold sans-serif) and text lines where set solid appear crowded. As to the latter point we say the slight effect of crowding is preferable to smaller type, use of which would obviate crowding. The booklet it supplanted, "Acme Poultry Service," is not as good, and not only because the new one is larger and, so, more impressive, but because the old one lacks interest, glamour, let us say. While not a bad job the first is in no sense distinctive, solid color panels in profusion now being commonplace if impres-

sive, though considerable of the value of the idea may be sacrificed when such panels are too extensively employed. The type in the new booklet is more readable. All in all, we're certain its increased cost came back with interest—the law of increasing returns again being sustained.

THE BARTON PRESS, INCORPORATED, of Newark, New Jersey.—Some pieces of direct mail stand out from the crowd, not because of elaborate use of color, stock, or illustration, but because of the intangible element of "character" which its creator puts into it. An example of this is the mailing piece issued by Barton, announcing a change of corporate name (previously Barton Business Service). The four-page folder (8½ by 5½) appears to be of heavy-weight black stock, with cover design and inside illustration printed in light blue; actually, of course, the stock is light blue, and the all-over black effect is the result of printing. The cover design is a simple ornamental ribbon on which are the words: "May we present our new . . ." Opening the folder, one sees the same all-over black effect across the inside spread—with a block of type, on a light blue background, on the left-hand page, and an illustration of a hand, also in light blue, on the right-hand page. The thumb of the hand has been die-cut, so that the new Barton calling card which has been inserted appears to be held up directly in front of your gaze. The card itself, a fold-over affair, is printed in black and old rose on India-tint stock; it provides striking contrast to the blue of the hand, which looms up prominently, and with almost three-dimensional effect, from the black background. The card-in-hand stunt is an old one by now, but Barton certainly has given it a new twist. This little mailing is clean, simple, vigorous, and dynamic—and makes a visual impression that unquestionably is different. It's an offset job, incidentally. Barton, styling itself "the most complete plant of its kind in the East," lists printing, typography, photo-offset, multigraphing, mimeographing, addressing, and mailing lists on its business card.

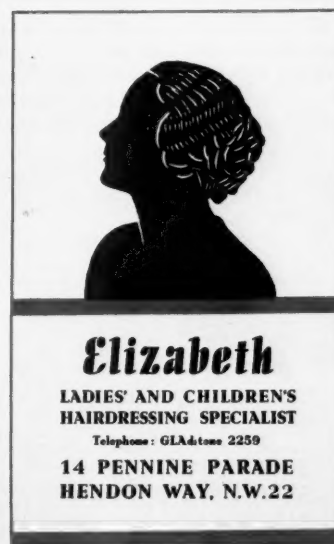
BOOKWALTER-BALL-GREATHOUSE PRINTING COMPANY, of Indianapolis.—Yes, we'll admit that your handling of that Hastings calendar imprinting is a commendable idea. We agree with you 100 per cent when you say: "Imprinting is a synonym for headache in the dictionaries of a lot of advertising executives, even though imprinted material is at least 50 per cent more effective in the dealers' hands. While we're not in the headache-powder business, we do have a cure for this particular pain. With Cercla mechanical binding we can solve imprinting problems satisfactorily and economically." The sample calendar you enclose with your letter demonstrates your point perfectly. Because the idea is well worth passing along, we'll describe the job. The 10-by-18½-inch, twelve-sheet calendar—prepared by Keeling and Company for its client, the Hastings Manufacturing Company—has been printed twelve sheets at a time on one sheet (four color) on two-color presses in your plant. The feature of the job is the hanger at the top—a 4-by-10 piece of stiff board affixed to the calendar proper by means of Cercla binding. These hangers were cut to size, Cercla-loose-leaf punched, and left blank. Then the calendars themselves were Cercla bound, and sample copies were distributed



Type face catalog (3½ by 9), designed by Erwin Bogin for Philmac, New York City. Streamlined—slips into anyone's coat pocket



Nickeloid of London, England, tells the British Isles about its engraving and many other services with this unusual blotter. Black with illustration white in green spot. Body type green



Effectively simple is this specimen from the North-Western Polytechnic Year Book, London



JUNE 1979						
SUN	MON	TUE	WED	THU	FRI	SAT
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

**L & W SERVICE COMPANY**  
ONE FORTY ORANGE STREET • PROVIDENCE • R. I. • DEExt 2582



\*\*\*\*\*

*L & W Service's blotter—true to the name—goes out four at a time for customers' convenience. Two months' calendar panel and signature background white, others blue tint. Ben Wiley, of Springfield, Illinois, designed the effective middle one. Name panel red; stars, eagle, and panel borders blue; rest white. Metallic bronze panel for reverse copy on Rosenow blotter; signature panel and halftone black. These again prove blotter's layout flexibility and their versatility*

to dealers. As the orders came in, the loose-leaf hangers were imprinted on a job press and attached to the calendars. The imprinting, in other words, is all done on the separate hangers, which are subsequently attached to the calendar sheets. At the top of each hanger is a hole by which the calendar can be hung; and the upper corners of the hangers have been trimmed off, giving more finish to the job. Your handling of the entire job of printing and binding is indeed commendable, as is the promotional use you make of the finished job. The explanatory letter and the specimen, sent in a wide mailing tube, so that the hanger wouldn't be bent, make an interesting and thought-provoking demonstration. Incidentally, the humorous calendar designs by Stan Eckman are very amusing. As you point out, it was smart of the agency to adapt these designs from Hastings advertising which had appeared previously in a national publication. The same plates were used for both purposes, it appears, effecting a neat saving on art and plate costs.

"MADE IN AUSTRALIA," with its 276 nine by twelve inch pages is proudly submitted by the printers, Arthur McQuitty & Company, of Sydney, and we say it is something any printer anywhere would be proud to turn out. No detail suggests attempt to compromise with quality. Eighty-pound paper, or even seventy-pound, would scarcely draw adverse criticism, yet the enameled stock appears to be of 100-pound basis. Individual leaves, thereby, tend to suggest worth and the total bulk and weight of the paper provides, we think, a degree of impressiveness out of proportion to the actual difference between 80- and 100-pound paper. The average American, including many printers, may consider out-of-the-way countries like Australia and South Africa undeveloped, lacking facilities to produce and enjoy the modern things. Publications from these lands frequently reviewed during the past two decades save the writer from any such false idea. More, perhaps, than anything heretofore seen, "Made in Australia" demonstrates the smallest continent is behind others only in volume, certainly not "class." Content is a presentation in word and picture of manufacturing and merchandising facilities demonstrating the Anzacs want for none of the things really essential to



we're goin' fishin'-  
-will you help us get ready?

All of us here - from the President down to the inkiest printer's devil—have been looking forward to this holiday ever since last summer. So we decided to lock up the place from July 29th to August 7th (and we mean INCLUSIVE).

Not only will we have a chance to kick up our heels but our Engineering Department can come in and give our equipment a thorough going-over while we're away.

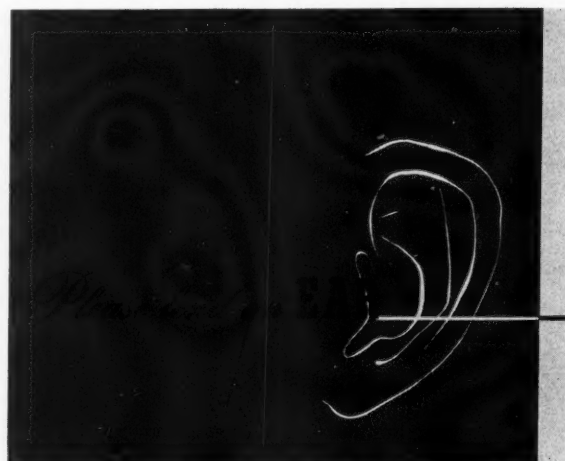
July 29th to August 7th

That means that for 51 weeks out of 52 we'll have a full staff to look after you—instead of a part staff from May to October. We've tried this plan for the past two years and it's worked out fine for all concerned.

So, in order that you may not run short on printing, our salesman will be around to see you very soon (if he hasn't been there already) and will help you to plan your requirements for the coming months.

Will you see what you can do for him, meanwhile?

**CRAIN PRINTERS LIMITED — 145 Spruce Street — Ottawa, Canada**



*Cleverly written summer shut-down notice. Cut is a linoleum block*

Cover (4 $\frac{3}{8}$  by 5 $\frac{3}{8}$ ), light brown, copy line in black . . . see opposite



good business and keen pleasure. Indeed, the impression is of a country as modern as England or America, the more remarkable since the scale is smaller. In its physical, visual, aspects the book measures up to the impression its content gives of the advanced position of the country's men of business. Halftone illustrations are as modern as those we see in our smarter publications. Text is set in Garamond, so, with halftones exceptionally made, and these and the type as perfectly printed as they would be in Chicago or London, no suggestion of the slightest need for the least apology is given. When it is recalled concerns doing business there have but 6,000,000 people to draw trade from, less than metropolitan New York, achievement is evident, and, as a printer, the writer is delighted to have this evidence that regardless of how the product of woolen mills or shoe manufacturers there compares with mills anywhere, the product of the press is on a par with that of the better printers here or anywhere.

ALEXANDRIA PRINT SHOP, of Alexandria, Florida.—Your turning back to the scrolls of ancient, biblical prophets for a new idea in a program for a Jackson Day Dinner in 1939 deserves a palm for originality. And a couple more of them are herewith enthusiastically added for your effective and artistic handling of all the details—from the simulation of an ancient illuminated manuscript in the announcement section of the parchment to the royal purple ribbon which ties the roll. While it's true that halftones followed the sacred writing of the prophets by several milleniums, you certainly should be permitted some license when it comes to methods of depicting the lodge's officials. Even Rembrandt had to compromise with his artistic conscience when painting the Dutch burghers of his day! Here are the details of this unique lodge dinner program: Stock—heavy, antique laid, toned to suggest vellum; Size—6½ inches by 19½ inches; Format, one continuous rolled strip with one end glued to wood spindle. Parchment is wound lengthwise around the black spindle which is about 8½ inches long and has ornamental turned ends. When unrolled, the parchment reveals four sections (which would be pages in a folded program). First is the announcement, printed in text, the spelling and typography like that of Andrew

EXECUTOR-TRUSTEE-AGENT-CUSTODIAN-REGISTRAR-TRANSFER AGENT-SAVINGS  
SAFE DEPOSIT VAULTS-INVESTMENT BONDS  
SAVINGS-COMMERCIAL AND PERSONAL CHECKING  
ACCOUNTS-EXECUTOR-AN UNBROKEN IDENTITY  
CUSTODIAN-TRANSFER-AND A CONTINUING MANAGEMENT  
BONDS-AGENT-INVESTMENT  
AND SAFE  
DEPOSIT VAULTS  
AND PERSONAL-CHECKING ACCOUNTS  
EXECUTOR-TRUSTEE-AGENT-CUSTODIAN  
COMMERCIAL AND PERSONAL CHECKING-ACCOUNTS-SAFE DEPOSIT VAULTS

THE NORTHERN TRUST COMPANY  
IN ITS FIFTY YEARS OF BANKING  
AND TRUST SERVICE

...or should we MURMUR it?

THE RONALDS COMPANY LIMITED, MONTREAL, CANADA. "There seems never a halt in the progress your organization makes. Inspiration and education result from each examination we make of the products of your studios, also your composing and pressrooms. To single out one item for special mention would probably amount to selecting the wrong one, for all are as good. It seems, as they could be made. We, therefore, pass. Facilities in the conception and complete production of top-notch advertising such as you offer are indeed rare. It is worth mentioning that they have recently been augmented by equipment for offset, excellent use of which is made in several items, particularly in the Rayon Reporter publication. Economies in plates, and especially of strikingly grouped illustrations, as compared with copper halftones for letterpress, are at once evident. Too, many a reader who dislikes the glare of coated paper will, we're sure, appreciate the fine grade of regular offset stock used. The booklet effectively demonstrates the recent great advance in type reproduction by offset. Even the small text matter is remarkably sharp and uniform. It is probably the most commendable feature of the item." FROM THE INLAND PRINTER.

THE BLOTTER FOR June

It was originally represented in Egyptian by a picture of a cheater, but the Phoenicians twisted the character into this symbol (P), calling it "Pe," meaning "mouth." Eventually it developed into a hook-like character which the Greeks turned into this symbol (P) and later this (P), the modern Greek letter, "Pi." The Romans rounded the one side this way (P) which developed into the letter we use.

PLATE Script is one of Keller-Crescent's many distinctive type faces. It is shown here in the letter "P," the word "June" and the signature.

The way that June brides get showered with attention reminds us of an old saying — "Before they were married, he sent her flowers, and took her to movies in taxis. After the honeymoon, all she gets is flour and he makes her walk to the store for it." Some businesses are that way. They court prospects with lavish attention, woo them with brilliant sales talk. But once the sale is made they forget all about their customers. How about you? You spend money to win customers. Isn't it good business to spend a little to hold them? Keller-Crescent can suggest dozens of inexpensive ways to assure that your customers will love you in December as they do in June! Why not call 516 today?

The artist's reproduction of a pair of lips here suggests that all types of business could borrow a leaf from cosmetic makers. It's amazing enough that women spend millions of dollars every year on lipstick alone. But what's more — they seem willing to pay double for a lipstick in a smart-looking case! It all goes to prove that sales appeal is 50% eye appeal — and that showmanship is a large part of salesmanship. That goes for printed salesmanship, too. If you want people to read your sales message, whether you put it in a letter, a folder, or a display — catch their eye! Keller-Crescent has a long record for producing printing that catches the eye and gets results! Call us — and we'll prove it!

Keller-Crescent Company

A COMPLETE PRINTING SERVICE FROM A TO Z Phone 516 RIVERSIDE AT LOCUST, EVANSVILLE, INDIANA

On the three blotters above, copy is the main element though Northern Trust's design, conceived by J. Mills Easton, advertising manager, and designed by R. W. Washish of Parker-Wonn, has a distinctive style. The oval, spiral design, and the anchor are black; brown the second color. SHOUT and the hands are red in Ronalds blotter by Leroy Barfuss, rest of copy white on black. Bottom—June blotter in Keller-Crescent's alphabet series. Second color red in the vital spots

TRI-ARTS PRESS, INC.

Advertising Typography • Printing

227 EAST 45TH STREET



Our old number was Vanderbilt 3-3380

Our new number is MURRAY Hill 2-1881



MEMBER NEW YORK GROUP OF ADVERTISING TYPOGRAPHERS ASSOCIATION OF AMERICA

Inside spread (4% by 11), French-fold announcement whose cover is shown bottom opposite page. Phones and line brown, copy black on white

Jackson's day. Copy is in black with type ornaments in two colors—blue and sepia. The richly ornamental border is in gold ink. The next section contains the menu, then comes the program, and finally the previously mentioned halftones of the Andrew Jackson Lodge officials of 1939. In order to reproduce the halftones, this section is embossed smooth. The piece could have been improved, perhaps, by use of some type face that might simulate ancient Hebrew characters used in the days of scrolls rather than type in use hundreds of years after the birth of books.

ACME PRINTING COMPANY, of Tucson, Arizona.—You, as well as the students of the University of Arizona who did their part in the handling of it, may feel very proud of "The Desert," school annual for 1939. The general format is excellent and praise is due the planning of artwork and use of color. The whole job admirably suggests the characteristics of your great and interesting country. A striking cover leads off. Beginning at the right-hand edge, bled off there, is a reverse panel  $3\frac{1}{2}$  inches in depth, printed in black. In this, to the right of final letters of the title "R" and "T" is a conventionalized picture of a character in working clothes. A sombrero covers his face. Lettering and picture show in the cream tone of the imitation cloth covering. Position suggests that the subject was lying prone and sketched from above. Then, afterwards, the sketch was shifted to upright position. Whatever the technique, it creates an interesting effect. This black panel is finished off on the left as if by brush strokes. Similar treatment is used on the larger panel of the same shape behind it, which is printed in red brown. There are two inches of the brown above and below the black and somewhat more than four inches at the left. Here, also in reverse color, the other letters of the title appear in line with the two in the black. All the letters are Condensed Gothic. End leaves are on tan stock with sketches of characterful technique in the lower outside corners. These are in deep brown. Sectional interleaves, separating departments, are handled the same way. Composition throughout is of the highest order of excellence—and that goes for the presswork. Indeed, in every case where pictures are not all they should be, it is plain the original amateur snapshots provided neither the engraver nor the printer with suitable material for a correct, finished result. Fortunately, however, even the students' camera contributions are for the most part good. Finally, someone had the good judgment to choose and use, as far as possible, one display type style for the advertisements in the back of the book. As a result of this consistency, these pages, a mess in so many books, through wild mixing of many and varied styles of type, have a characterful appearance. They invite reading without sacrifice of the potency of individual advertisements. It is easy for a merchant to argue, "My ad is in a different face from others, it will stand out from the rest." Trouble is, when many reason this way, there is no more individual distinction to attract the eye than when all are one style! But what a whale of a lot of distraction! Chances are most of them are ignored or read under conditions of confusion that nullify the selling story. Obviously, buyers of printing are shown, by your handling of this big, heavy book, that they have every opportunity to secure printing as high in quality as is obtainable anywhere right in town.

To  
**J. L. FRAZIER**  
Esquire

This is your summons to appear at the monthly court gathering of the Limited Editions Group for "trial-by-jury" of that hundred-year-old jovial character

**MR. JOHN JORROCKS**  
(brain-child of R. S. Surtees; clad in new apparel tailored by D. B. Updike, honest Boston printer) who is ably defended by George Macy. Since the above-mentioned permanent "jury" is now minus one juror, members are urged to be present at all costs, but to bring no guests, as a successor to the missing juror is to be chosen. The time of this feast is six o'clock on Thursday evening, February eleventh; the place will again be the Cecil Tavern on Post Street, near Mason, in the good city of San Francisco in California. [A. D. 1939]

Haywood H. Hunt, acting foreman

☆ We'll Be Seatin' You Out Our Way in

**SAN FRANCISCO 1940**

Haywood H. Hunt Editor of  
Share Your Knowledge Review

**The Kennedy-ten Bosch Company**  
PRINTERS AND ADVERTISING  
TELEPHONE DAVENPORT 6888  
ARTISTS BUILDING BROADWAY AT  
TYGONHURST  
Causal, Personal Supervision of Work from Printing to Delivery

KALVIN FISHER

**The Kennedy-ten Bosch Company**  
400 KANSAS ST. - SAN FRANCISCO  
TELEPHONE GANFIELD 9522

PERSONAL ATTENTION  
OFFER ALL WORK  
-LARGE OR  
-SMALL

HAYWOOD H. HUNT  
TYPOGRAPHIC LAYOUT

**H. M. THOMAS COMPANY**  
SALES ENGINEERS FOR  
Electrical Distribution & Transmission Equipment  
145 SECOND ST. - SAN FRANCISCO  
TELEPHONE DOUGLAS 5807

H. M. THOMAS

**The Kennedy-ten Bosch Company**  
PRINTERS AND ADVERTISING  
500 BEACON STREET AT CHEY  
Telephone GARFIELD 0522  
San Francisco, California

Haywood H. Hunt, Typographer Design

WHEN "EAST MEETS WEST"  
ON PACIFIC SHORES • THE  
OCCASION BEING A VISIT OF  
INTERNATIONAL PRESIDENT  
AND MRS. CLARK RUSSELL  
LONG OF WASHINGTON AS  
GUESTS OF SAN FRANCISCO  
CRAFTSMAN A. T. MANU JR.  
WHO DELEGATED MILTON  
DURAND TO ACT AS HOST  
IN HIS ABSENCE

**THE Graphic Arts League**  
Exhibition will be here December 1st  
to 15th. This year's Exhibition is  
by far the best we have ever had and is well  
worth seeing. Exhibit will be on display  
at 1000 Market Street, between  
2nd and 3rd Streets, Friday, December  
1st, when there will also be an exciting  
display until 9:30.

**Remember," too**

In the above panel is a group of business and announcement cards designed and set in type by Haywood H. Hunt, ace typographer and a leader among printing craftsmen on the Pacific Coast. Diagonal panel across the Kennedy-ten Bosch card, third from top, is orange. Color above buff, below white—where Mr. Hunt's name is imprinted. Third line of copy in the next card is in red, border is in buff, and initial T bottom center of the card is red on black

By Edward N. Teall

# Proofroom

Questions relative to proofreading problems solicited for consideration here. Replies cannot be made by mail

## Affect, Effect

A high-priced copywriter wrote "This remedy does not effect the heart." Our proofreader changed it to "affect." The writer changed it back to "effect." The proofreader refused to pass it. The writer called me and raised the roof. I backed up the proofreader, and then for authority had to read, over the telephone, all definitions of "effect" and "affect" from an unabridged dictionary. I won the argument, but I recall another incident in which final settlement of the difficulty was not so easy. A top-notch writer wrote an ad in which colon and semicolon, in a certain sentence, were sadly misused, so that the sentence was all fogged up. It was a full-page ad in one of the most expensive mediums. Our proofreader corrected the punctuation and the writer raised—well, let's say again, the roof. So we changed it back, and then came a wire from the publishers saying they must refuse to run the ad unless they got a definite okay for punctuation.—Virginia.

"Affect" and "effect" are two of the worst troublemakers. I straighten it out in my own mind by reminding myself that when something affects somebody it produces an effect. I have admiration for that proofreader, who stuck so stoutly to his guns. One of the meanest things about proofreading is the necessity, frequently, of passing things that are clearly wrong. A good proofreader knows more about these things than most writers do, because he has to give them more attentive study. The story of the publisher's refusal to run the ad without satisfactory okay on punctuation is interesting, too.

## Indexing

Speaking of indexing, as you have been several times, there is the classic example of bringing unrelated items together: "Mill on the Floss" in one line, with "—on Liberty" in the next.—Tennessee.

A fine example of how not to do it. "Mill on the Floss" is of course a George Eliot novel title. "Mill on Liberty" is not that kind of mill, Mill being the author's name. Still, I think

"Mill on Liberty" is the title of the book, isn't it? Or at least, that's the way the book is commonly spoken of. But in any event it's nothing less than grotesque to group the two on the strength of "Mill." They should have had separate entry.

## Limits of Language

Here's a headache for writer or printer: "There are three too's in the English language." That's a problem; how are you going to write it? It's a wisecrack, but still, it might come up in print, as it will if you use this letter.—Pennsylvania.

Yes, sir—that is a sticker! We have *to*, *too*, and *two*. All pronounced alike, all spelled differently. In speech the thing gets across all right, because spelling is not necessary, the expression goes by sound, and the listener gets the point. But in print—well, that's something else again. I can't think of any better way to handle it than that which appears above; it gives the sound, with full spelling (phonetic value), and leaves the rest to the reader's intelligence. I often think we who write and print do not give the reader credit for half the intelligence he actually possesses.

## Common Spelling Errors

I think the two words most frequently misspelled in copy from good writers are *accommodate* and *wierd*. Would admire to hear from other *Proofreaders* what they meet up with most frequently in this line.—South Carolina.

I think it altogether likely that examination of a hundred thousand writings would show *accomodation* far in the lead. *Wierd* looks right, but if you want to locate the word in the dictionary you must put the *e* first. It's in the class with *siege* and *seize*, which always make me stop and think. It would indeed be interesting to hear from proofreaders what they actually encounter in the way of such misspellings in their work.

## Printers as Proofreaders

The two views of the desirability of having only practical, experienced printers in the proofroom may be due to there being two fundamental divisions of proofreading. One is the mechanical; the other is intellectual. A good journeyman typographer is not especially likely to be a wordmaster; on the other hand, persons, usually women, who think they have a superior knowledge of punctuation, spelling, and the like, are apt to know too many things that aren't so. For practical purposes there is no grammar left in English. A wordmaster can use technique that horrifies schoolma'ams. In this as in other arts, rules are made to be broken by masters; for what are rules but the way that previous masters worked?—Georgia.

Interesting! As to fitness of different classes of people to be proofreaders, it seems to me to boil down to this: Which produces the better result—to coach one type of person in the technicalities of print, or another in general education? In practice, the principle that a proofreader should be a former printer rules—except in high-grade publishing houses where a touch of editorial discretion is wanted.

The second part of the letter interests me intensely. There's deep philosophy in that observation that "Rules are but the way the previous masters worked." The wordmasters do indeed shock the schoolma'ams. What you have to do is to be sure the maker of new styles is indeed a wordmaster.

The writer of this letter further observes, sagely: "A certain kind of proofreader is apt to question matters of punctuation, inflection, and other things to which there are two or more standard choices, and the author has chosen ones which the proofreader is allergic to; and at the same time pass over without recognition substantial slips of the pen." This goes back to my favorite contention that the proofreader who misses typos because he is so busy trying to catch the editor or writer in an error is not the best kind of proofreader.



## Printed as Written

Capitals in proper names: North River or North river? Is it a proper name? Isn't it merely descriptive? the north river (not because its north of Manhattan but because it comes from the north; as a matter of fact its not a river but a tidal estuary, a drownd valley. Such features as twin peaks, the sunset district, the parkside district, the embarcadero, the boulevard of the allies (Pittsburgh), the gold coast (Chicago); but I get into trouble when the eponym has disappeared, as the battery and the wall street and the bouwerie (Newyork). My viewpoint is the writer's, who knows what he wants to say and signify; the proofreader's may be privately creative but in his proofreading he must not exercise it. If the author seems to know what he's doing, follow copy; otherwise make it consistent one way or another.—*California.*

I give it to you just as our California friend gave it to me: caps and lower case, spelling, punctuation, and all. It's an odd exhibit of what happens to a writer when he goes freakish and discards all the conventions. Certainly I prefer "North River," because it is a proper name and "River" is an integral part of it; but many persons prefer "North river," relying on the cap "N" to mark it sufficiently. That's okay with me, provided it is style throughout and the same form is used in "Rocky mountains," "Woolworth building," "New York city" and the like. The advantage of my style is that it doesn't lead to complications, but fits all similar situations. As to the reason for calling the Hudson River the North River, I think the name was used first to distinguish that river from the Delaware, which was formerly called the South River. But that is aside from the point: use of two capitals. To me it seems utterly ridiculous to write of the Boulevard of the Allies without the caps. It certainly is a proper name, and use of the caps marks it clearly, unmistakably as such.

## Not Question of Rank

Which ranks highest, operator or proofreader?—*Oklahoma.*

They are just equal parts of a great machine.



Reduced in this issue, *The Proofroom* will be back in full stride next month. This department is edited by a man who has served as editorial writer on metropolitan newspapers and as editor of several dictionaries. Many subscribe to *The Inland Printer* for this feature alone and consider that it gives them full value for their money each month.

# The Typographic Scoreboard

September, 1939

Subject: *The Saturday Evening Post*

Issues of July 8, August 12, 19, 26, and September 2. 100 page and two-page advertisements

## Type Faces Employed

Garamond (T).....	29
Old Style, 14; Bold 15.	
Caslon (T).....	13
Old Style, 10; Bold, 3.	
Bodoni.....	12
Regular (M) 7; Bold (M), 1;	
Book (T) 4.	
Bookman (T).....	9
Scotch Roman (T).....	8
Baskerville (T).....	7
Century (T).....	6
Light, 5; Bold, 1.	
Granjon (T).....	3
Vogue (M).....	2
Stymie (M).....	2
Kennerly (T).....	1
Cloister Old Style (T).....	1
Girder (M).....	1
Cairo (M).....	1
Condensed "Gothic" (M).....	1
Memphis (M).....	1
Bernhard Roman (M).....	1
Futura Medium (M).....	1
*M—Modernistic; **T—Traditional.	
Ads set in traditional faces.....	81
Ads set in modernistic faces.....	18

Affecting the score, of course, is the fact that the display of 25 advertisements credited above to traditional type faces appeared in faces of modernistic character. On the other hand, only one

advertisement credited to modernistic type was topped by traditional display. Thus, if display rather than text were considered in the analysis, the score would be: Traditional, 57; Modern, 42. In addition one advertisement was completely hand-lettered and it was of modern character.

## Weight of Type

Ads set in light-face.....	53
Ads set in medium-face.....	11
Ads set in bold-face.....	35

## Style of Layout

Conventional.....	68
Moderately Modern.....	28
Pronouncedly Modern.....	4

## Illustrations

Conventional.....	75
Moderately Modern.....	24
Pronouncedly Modern.....	1

## General Effect

(All-Inclusive)

Conventional.....	45
Moderately Modern.....	51
Pronouncedly Modern.....	4



Scorekeeper considers these the best modern and conventional page advertisements in the five issues of *The Saturday Evening Post* considered in this analysis. It is understood, of course, that only typography, layout, and art are here involved

**I**N THE OFFSET process, the complicated conditions, of "work" or image in the same plane with the blank spaces of a grained plate (grained to hold water applied before the ink), moderate ink and water supply required in nice balance, ink and water transferred to a rubber-like blanket and thence to paper at considerable speed, demand ink vehicles with maximum distribution, transfer, and drying capabilities. Aluminum holds the image through adsorption without chemical reaction with the vehicle. Zinc holds the image not only through adsorption but chemically, and so more firmly but with a possible inclination of the ink to penetrate the plate and spread, cutting down sharpness of the reproduction.

Synthetic rosins improve planographic and litho inks by modifying and controlling consistency accurately, adapting the vehicles to the peculiar conditions of the process, improving ink reception to produce a good image, enhancing resistance of ink to water to prevent emulsification, improving lift of ink from the plate to secure a stronger impression from same film thickness, better setting and drying speed, more resistance to rubbing, and by diminishing the amount of dusting bronze. Tin printing may in a third of oil-base inks.

The water of the dampening system makes peculiar press conditions. The blank parts of the plate are desensitized to ink with layers of adsorbed gum arabic and phosphates. So the water system contains gum, acid phosphates, and bichromates. The solution, constantly in mechanical contact with the ink, causes emulsification which is increased by the gum. Pigment separates from vehicle. The oily phase is emulsified in the water. The vehicle is hydrolyzed and as a result of the emulsification and hydrolysis the water resistance of the ink is lowered so that scumming, caking of ink on rollers, tinting, and toning may follow under certain conditions.

#### **Separation Preventive**

Synthetic rosins help to control these difficulties by preventing separation of vehicle and pigment. Zinc naphthenate is a wetting agent used to prevent emulsification. Ester gum, ester copal, and other synthetic rosins increase water-resistance.

Principal causes of scumming: 1. Ink that lacks water-resistance; 2. Ink

of too thin or soft consistency; 3. Poor water-receptivity of plate from incorrect etch; 4. Basic or alkaline damping water; 5. Scant supply of damping water; 6. Ink of high acidity. A reason for soft inks scumming more than stiff ones is that the latter are more plastic, with stronger cohesion and less capacity to displace other liquids from the plate during the printing process.

● *Among other things, in this final article on modern printing inks, the author looks into the future at problems that remain to be solved to meet new demands of the industry and modern conditions*

By EUGENE ST. JOHN

Principal causes of etching, anti-thesis of scumming: 1. Etch or other desensitizer in damping water (prevented by distillation); 2. Weak image from incorrect sensitization of plate or unsuitable transfer ink when the image is by transfer; 3. Progressive removal of the image by poorly set dampener, superfluous squeeze in impression, or poorly set inking rollers. The water gradually dominates the plate through the disintegration of the image, increased by rough surface dampers and the replacement of the ink film by an insoluble salt. Ink may indirectly lead to etching if, when it inclines to scumming, superfluous desensitizer is added to the water to prevent scumming.

Piling at the limits of the design is avoided by adjusting the body of the ink to the capability of the inking system. The more troublesome piling, emulsification of water into ink (dif-

ferent from that of ink into water, causing scumming), is avoided with ink of suitable consistency, and using a minimum of gum arabic.

Polishing is removal of ink from the steel rollers of the press until they become too desensitized to take ink. Damping solution, emulsifying into the ink, dries with mat surface on the rollers. Bare steel shows through the ink film. Instances of entirely bare and polished rollers occur. Polishing comes from desensitizing by gum arabic and phosphoric acid. Both should be at the practicable minimum. Short runs of two colors in one operation from the same plate are handled by stripping the rollers in the center with phosphoric acid. Polishing may be overcome by washing the steel vibrators and ink drum and rubbing the bare spots with oleic acid on the emery cloth. Polishing comes when design on the plate is worn away, especially at the ends, where phosphoric acid works more easily.

Obscuring the design, are caused by suitable lead salts in paste and prolonged contact with the dampening solution containing lead. The aqueous solution of lead, chemically with the plate, leaves a lead on its surface.

Happily, many pigments and litho varnish have good mutual "wetting" qualities, largely due to molecular actions on the surfaces of the particles of pigment. A film of varnish oil incloses each particle of pigment—an envelope not easily disturbed and resisting the tendency to separate under the disturbing action of water. Varnish molecules arrange themselves in order around the particles of pigment and anchor further additions of varnish. Very small quantities of chemical substances, unrelated to varnish and vehicle, can change the physical nature of the surface between liquid and solid wholly disproportionate to their percentage in the mixture. Complications influenced by the positive or negative electric charge of atoms, affect the behavior of pigments.

#### **Dispersion Important**

Dispersion is important in offset ink making, equally with tinctorial value. Highest possible color strength is needed with good dispersion for the strongest color with the thinnest film on the cylinder.

Metal printing is nearly all done by offset. Tin printing is typical. The

sheets are coated with titanium dioxide on a coating machine. Standing on edge, the sheets are moved slowly through an oven 80 feet long, allowing baking of the coating for twenty minutes. Next one or more colors are surprinted on a single or two-color press. After printing, the sheets are coated with gloss varnish to protect the ink against scratching, wear, and the action of the elements. After each pass through the press, the sheets are baked for an average of ten minutes while they move on edge through ovens. The pigments are similar to regular offset inks, but must often be prepared to withstand the elements, as well as baking. Older litho varnishes are being replaced by synthetic varnishes which dry by oxidation. More rapid, this gives sharper printing through better resistance to emulsification. Synthetic inks, with vehicles of synthetic rosins in very high-boiling solvents, are the latest development for offset printing on paper, metal, tin-foil, and like surfaces. Drying is accomplished by evaporation of the solvents while the printed sheet is exposed to high heat for a few seconds in passing through a short oven. In some inks, nitro-cellulose is combined with synthetic rosins in a suitable solvent. Many problems of printing on leather, fabric cloth, rubber, and cellulose have yielded to synthetics.

#### **Factors in Drying**

Drying involves penetration, evaporation, oxidation, and gelation, and their various combinations.

Drying by penetration is when absorbent paper draws in ink until the print looks dry. Correct degree of penetration is needed. Too much cuts gloss and brightness; too little, causes offset, smudging, sticking. Penetration combines filtration of ink through tiny spaces between fibers, and absorption by fibers. Speed of this capillary action depends on the porosity of the paper and ink consistency. Too much of it causes "strike through."

When fibers absorb the vehicle minus pigment, chalking may occur. Excessive absorption and fiber wetting causes transparency. Ink shows through. Varnish oil, spreading on the sheet, forms rings around the impressions. Fiber wetting is diminished when the ink vehicle is set to dry quickly. Linseed, castor, and mineral oils vary in wetting power in the order named.

Inks containing solutions of rosins, in volatile solvents, dry by evaporation and penetration. Penetration fixes the ink layer on the paper during film formation. Rotogravure ink's solvent passes off at pressroom temperature while heat-dry magazine ink solvents flash off at high temperatures. Rosins of high-melting point in both prevent sticking of piled sheets and the paper in rewind rolls. Boiling ranges of solvents are figured on drying conditions. In rotogravure inks, solvents must not be held long by the rosins and water-soluble solvents avoided because humidity slows evaporation.

#### **Oxidation Speeded Up**

Oxidation of oil varnish base inks is speeded up by driers of lead, manganese, and cobalt. Percentage of drier relative to oil is high to offset the pronounced drier adsorption caused by the surface action of the fine pigments in inks. Also because, in piled sheets, there is little oxygen, especially when static holds the sheets together. Non-offset spray aids drying as minute particles of powder produce a layer of air not otherwise present. Synthetic rosins decrease the quantity of drier needed and the quantity of oxygen required without skinning in the can or drying on the inking system. Thin as the ink film is, it can be made very resistant to rub and scratching. Sheets may be folded and cut within an hour or two after printing.

There is a demand for still higher drying speed. Is the answer inks in which gelation assists drying by oxidation or penetration? In this action, vehicles in suspended gelation will at once form a solid gel in an ink film subject to the combined action of oxygen and reactive pigments as on a sheet of paper containing as filler, or in the coating, a reactive pigment like zinc oxide.

A new drying process is to treat paper with a powerful organic oxidizing agent, benzoyl peroxide, rather costly for wide application. Doubtless some less expensive agent will be developed for this purpose.

In the pantone process, with mercury on the plate, an ink is needed which will replenish the supply from the fountain, an unsolved inkmaking problem.

Among recent developments are high-gloss inks for the major processes, letterpress, gravure, and offset, made possible by synthetic rosins. A varnishing operation is saved and a

high gloss protects the surface of the special paper required. Non-offset spray is used. Sheets are racked in small lifts, winded in two or three hours. Successive overprints must be lighter to avoid mottle. Penetration is slight, leaving maximum percentage of film on the surface to enhance the gloss. Increasing use of rubber plates forced making inks that wouldn't cause plate swelling. Rubber manufacturers cooperated to practically solve the problem.

Investigation as to why some inks lose their drier rapidly with even a week of aging diminishing the drying rate of the ink, showed that drier combined with the pigment. Alumina hydrate is one example.

New types of water-soluble synthetic rosins have yielded water-color inks that dry to hard, brilliant, water-proof surfaces without the disadvantages of the original water-color inks—mixtures of gum acacia, dextrans, glycerin, water, and other ingredients.

New synthetic waxes are used in gloss inks, overprint varnishes, and other specialties yielding hard, smooth, abrasion-resisting surfaces without the unevenness of natural wax.

#### **Special Waxed Inks**

Special waxed inks are available for use in heated fountains of letterpress machines to meet the heavy demand for better spot carbonizing of such work as multiple billing forms.

The new three- and four-color process inks remove the dread of crystallization as synthetic rosins permit close calculation of the trapping quality of the ink.

Inkmakers, alert to every possible outlet, have brought out full lines especially suitable for platen presses.

Drier technology marks 1928 as the year of naphthanate driers' arrival. Lead, manganese, and cobalt are still used, but these new materials have better initial solubility which holds up with age. Other driers, based on the more stable saturated, organic acids, are displacing naphthenates. Iron naphthenate and zinc naphthenate increase hardness and toughness in the dried film.

Solvents, too, have kept abreast. Numerous established alcohols, esters, and ketones are now produced synthetically and additions are frequent. Petroleum refiners have developed products with specific boiling ranges and through hydrogenation have



developed a number of valuable solvents for inkmakers' use.

Aluminum paste has now made possible satisfactory ready-mixed aluminum inks. The latest innovation is the tinted silver ink for letterpress halftone. Pastel shades in silver strike a pleasing new note. Ready-mixed gold inks still await means of holding the vehicle in suspension without separation. Gold lining powder for ink is now available much finer than before. Results: improved working qualities, greater solidity in the print, better coverage. Finer powder sacrifices a little brightness for more evenness. Copper in gold ink presents the problem of deterioration in a ready-mixed ink. Gravure is ideal for metallics, giving more brilliance and coverage than other processes with graded tones. On flints and friction-glazed papers, metallic gravure is in great demand, as confectionery packaging shows. On cellulose tissues, the latest application of gravure is seen. Gold is preferred to silver because of contrast between the rich gold and transparent, colorless wrap in displays of merchandise.

Suitable gold ink for rubber-stereo printing is a reality. A special medium is used with very finely divided powder. Because of the medium's volatility, additions are made while running. Fair results are possible with silver inks by direct litho and offset. Gold can be used in certain cases in direct litho on favorable papers but remains a problem in offset because of the difficulty of holding the gold powder in suspension during two bumps for one print. We need a cure for this.

#### **Halftones on Metal**

Improved halftones on metal have recently been produced via offset tin printing. Development of a white ground which stands baking satisfactorily resulted from a mixture based on titanium dioxide and zinc oxide with synthetics. Five per cent zinc in the pigment prevents after-yellowing.

Synthetic rosins and vehicles, and synthetic waxes with the latest improved driers, have made possible better overprint varnishes for offset and letterpress. A suitable ink, laying and drying properly, is the necessary ground and primer, possible with synthetic rosin vehicle and the new driers. Both ink and overprint varnish can be closely calculated for accurate control at all times.

Synthetics have also improved spirit varnishes in the same way. Applica-

## **Dependable Sales Tools Supplied**



We have regularly supplied dependable sales-tools to some of the most successful St. Louis concerns. These alert business

houses are successful because they realize that "business is as good as you make it" and so they campaign for sales persistently and efficiently. For one such customer we have produced a printed sales-tool every month for more than thirty years—without missing a month. Through the years of prosperity and depression, peace and war, boom and panic, month after month this successful concern has consistently kept its doors to sales wide open. Their sales-tool, thirty years old, always has been kept in condition to meet the current demands of selling.

*Ketterer-Jansen Printing Company, of St. Louis, Missouri, emphasizes persistence*

tion is by both coating machine and spray, reinforced by a drying oven. The paper dealer, finisher, and ink-maker should be consulted nowadays. Certain surfaces are preferable and certain colors withstand spirit varnish better than others. Here, too, the ink film must lay smooth and dry hard. This type of varnish can be made resistant to water, moisture, rub, scratching, and, in some instances, alkali proof. Heavy folds are scored before spirit varnishing. Some inks are "varnishable with care" if the ink is bone-dry and lays properly on the sheet.

Lacquer employs cellulose in suitable solvents, applicable on coating machine or, thinned down, with spray guns. The finisher and inkmaker should be consulted before printing a job to be lacquered, as the choice of colors which are resistant to lacquer is limited. It yields a better film, more resistant to water, moisture, alkali, grease, scratching, rub, and handling. Lacquer is clear, does not alter the whiteness of paper and does not discolor with age. It is flexible and withstands folding, creasing, and scoring. It is odorless, harder, and has greater durability than other finishes. The paper lies flat without curling and the

lacquer film will neither strip nor peel. The blank paper and print have the same high finish with lacquer—the only "one shot" finish. Overprint and spirit varnishes look better over the print than in blanks and margins while lacquer gives the same high finish to both. It's worth the higher price. Rubber derivatives have recently been utilized in lacquer.

Thermoplastic lamination is the application of cellulose acetate, cellulose nitrate, viscose cellulose, and similar materials to paper by heat. Two sorts of special adhesives are used, one with solvent base, allowing the use only of pigments with a synthetic varnish vehicle fast to the solvent; the other of the emulsion type, water and selected gums, allowing the use of any pigment used in inks. The emulsion type is used when ink has been printed with mat surface, free from grease and wax.

An interesting form of finishing is the surprisingly good simulation of natural wood finish on the metal dashboards and window moldings of motor cars. It's done by printing the simulation on sheet-feed gravure presses and applying a special cellulose lacquer, permitting the simulation to be stripped from the gravure paper support in the automobile plant. Here, it is laminated to the dashboard and window moldings and finally lacquered.

Synthetic rosins and vehicles permit inks to be formulated to uniformly close standards, important in surface-coating inks so subject to conditions of atmospheric change before and after printing.

#### **Coatings and Surfaces**

Since coatings must be suited to surfaces on which applied (95 per cent of them is paper), this material, to afford favorable reception of the coating, should be held to very close standards. Also, since paper, ink, and rollers are subject to atmospheric conditions—the atmosphere in printing plant workrooms should be held to very close standards. Closer standardization of ink and paper cannot be made the most of until the workroom atmosphere is held to close standards. In offset, gelatin printing, and gravure, the colloids used in the vital photomechanical preparation of the plate are highly susceptible to atmospheric influences. All photo-gelatin plants in America are air-conditioned and so are many large offset and gravure workrooms. This permits closer standardization in ink and paper. Plants not

air-conditioned are operating under a heavy handicap in attaining efficiency.

Closer coöperation between the papermaker, inkmaker, and roller manufacturer, coupled with more general application of air-conditioning, will bring better printing. Complete utilization of optical principles will reduce photomechanical plate costs by simplifying operations. Lowered costs will permit more use of color, already a pronounced trend. Standardized inks shortly will be made to work accurately and be uniformly efficient.

#### **More Research Needed**

Further research will lead to the production of inks with better resistance to fading, acids, alkalis, spirits, water, moisture, heat, oil, grease, and handling. Ink odor will be slight—except in specially perfumed inks.

One problem, accurate color matching, needs solving. Modern merchandising, for example, requires uniform color in posters, window trims, signs, and other advertising display. Displays lack a balance, effects are spoiled when duplicate units, like cartons, vary in shade. Chemical and physical problems, physiological and visual aspects, and mechanical limitations must be considered in the demand for color matching. Masstone, undertone, color strength, transparency, gloss, specific weight, body, oil solubility, and dispersion, illumination by daylight and artificial light, the "size" of colors, (white appearing larger in a given area, the colors decreasing in size from light to dark ending with black, the smallest), "motion" of colors, that is, advancing and retiring colors, are a few properties of color to consider.

When a color match and uniformity are requested, the allowable tolerance and the method of testing should be specified. Tolerance in optics and mechanics differ. A mechanical engineer may be given a tolerance .002 inch, but the pigment maker has no mathematical tolerance gage. It is not easy to specify tolerance in shades because color definition is hard. The spectrophotometer comes closest to measuring color. Matching curves in the meter assures a corresponding color match but tolerance setting is difficult. Here the practiced eye of the experienced color matcher acts along with his knowledge of printing surfaces.

Another difficulty is getting a standard for color measurement and match-

ing. So far, the best proof is a standard quantity of ink the square inch at three concentrations. This may be made with an engraved plate in three tones or it may be painted, so masstone, overtone, and undertone may be judged. Here enters variance in paper and atmosphere. Color varies in shade with penetration into paper. Paper absorbency varies with temperature and humidity while an order of paper can vary in absorbency, coating, or finish, and in color whiteness, sheet to sheet, and between face and reverse side. Another method, based on similar consistency of two inks, is a draw-down with a steel blade. Variance in pressure on the blade gives masstone, overtone, and undertone. The ink-maker prefers ink from the can to print as a standard proof for matching. However, changes which may occur in the container, in some colors, affect this test.

Factors affecting color match or uniformity such as drying, body, "wetability" of pigment, and dispersion, can, to a degree, be determined by experiment and expressed mathematically and aid in control.

#### **Many Deteriorants**

Inks often have to be resistant to the action of a variety of deteriorants present either in paper or board or showing up later. Intimate knowledge of every pigment and other ingredient used in the inks is only gained by actual tests, checking and recording and filing of results. A single ink may have to be used for many purposes and withstand many deteriorants.

Fastness to light can only be determined under actual conditions. The lamp test is not reliable since some colors fade fastest under the lamp and others under the sun. City and country, coast and inland fadings of color vary. Urban smoke removes part of the ultra-violet rays of sunlight and many colors are affected by chemicals. Radiation is more active in the country but sulphurous acid is missing. On the coast, salt air adds to the difficulty.

Transparent and opaque-tinting whites affect colors. Magnesia is unfavorable to colors not fast to alkali. Zinc-mixing white works dirty on zinc plates.

A good-baking, natural copal was long considered a shield against the action of sunlight and heat but the new synthetic inks are more protective.

Since in organic colormaking, the best dispersion is obtained in water,

it seems wasteful to roast this paste, mix it with varnish, and give it a number of passes over the ink mill to approach the original degree of dispersion easily obtained in water. That's why there is a search for water-set or pigmented water ink which may be used on highly finished as well as absorbent papers. This may be the ink of tomorrow.

#### **Synthetic Lacquers**

Among recent new surfaces are the synthetic lacquers applied on paper, eliminating finishing after printing. "Unifoil" is a new product consisting of lacquered mat silver on fifteen-point cover stock. In printing on very heavy sheets avoidance of offset is a problem even with offset spray guns, which deposit dextrin in solution in large particles on the wet ink. For heavy carton stock the "bumping method," (patent applied for) is used. It consists of inserting round-nosed steel pegs in the printing form which are .968 inch high, or fifty thousandths higher than the type, and placed between cutting and creasing rules. The resulting bumps or protuberances on the printed sheet keep the wet ink from contact with the reverse side of the next sheet, above in the pile. This allows much higher piling and facilitates production.

The new flint-glazed papers admirably save a finishing operation on paper to be used for announcements, book jackets, covers, box covers, broadsides, brochures, confectionery wraps, displays, end leaves, envelopes, French folds, inserts, labels, menus, programs, and seals. On these newer surfaces special inks are used, without amendment except as advised by the inkmaker—a good idea with all the newer inks. Paper and atmosphere remaining variables, the pressman will, at times, have to add conditioners. Following the inkmaker's advice is wise, however, because of many rapid changes in inkmaking.

Today there are few reasonable demands of users which leading ink-makers can not meet. As soon as a novel demand arises, the inkmakers face it. A satisfactory ink is soon produced. In many instances, the ink-maker will be found ready a step in advance of the industry. Few printers keep well enough informed to fully exploit facilities the inkmaker offers. In this era of rapid changes, which the canny often scent in the offing, it is advisable to keep well informed.

# SMALLER MACHINES KEEP STEP

*Progress in composing room and pressroom auxiliary equipment has matched the developments in typesetting machines and presses. Here a number of these improvements are described—more reported elsewhere*

## **Precision Form Aligner**

The form aligner is designed for the accurate lining-up and positioning of forms before sending them to press. It is attached to any steel imposing table. For lining up, the forms are clamped to the imposing surface as if on the bed of the press, the cross-bar is straightened, and the bow taken out of chase before lineup begins. In other words, the stoneman makes the same lockup as the pressman does when re-locking the form on the press. Geared tracks are provided at each end of the table and the straight-edge is placed and locked in mesh with these tracks.

Margins at right angles to the straight-edge are lined up and positioned by using a celluloid triangle. The lateral cross-bar, which forms the straight-edge for lining up, is so constructed that any possibility of sagging is eliminated, even when a small form is being lined up.

## **Light Aligner**

The light aligner is composed of a compact, steel box with a specially coated, translucent glass working surface on which are accurate, permanent lines spaced one-fourth of an inch apart vertically and one-eighth of an inch apart horizontally. There are heavier indicating lines one inch apart. These lines are clearly visible through several thicknesses of paper when the light is turned on.

The sheet is placed under a clamping bar, which may be fastened at either top or bottom, holding the sheet firmly in place. The ruled surface takes a 17 by 22-inch printed form. Eye-strain is minimized by the use of five outside-frosted light bulbs and the translucent glass top. This breaks up the light rays and prevents glare.

## **Proof and Test Presses**

In the search for precision and better forms, which cut down the standing time of the production machines, the test and proof presses of recent years have played an important part. They are largely responsible for the adoption of pre-makeready. These are precision presses and their principal

functions are to test the units of the form, preferably before it is made up, to ascertain dimensional errors and thus bring about correction. Products of line-casting machines and the plate-making and duplicating plants are thus serviced by the test and proof press and later, when assembled as units in the form or page, are again checked, along with other units, by the test proof press.

Modern proof presses are made in a wide range of sizes. One development proves the form on the imposing surface instead of placing the large form on a proof press, or waiting for a proof on the production press, which would add to the latter's standing time.

## **Higher Speed Quoins**

These improved quoins, two of which do the work of five to eight ordinary quoins, increase the speed and give a better lockup. The expansion is direct and powerful. Many forms may be locked with two of these high-speed quoins. They are ideal when space is limited and the quoins must be placed between units whose outer edges are in contact with the inside of the chase. These quoins come in 4½, 6, 7½, 9, 10½, and 12-inch lengths; width 47 points closed, 59 points expanded. Other lengths can be furnished on special order.

## **Portable Router**

A useful development is the combination type-high device and portable router. Together, they serve as a router, router-vice, and type-high machine. This outfit can be plugged into an ordinary light socket enabling the operator to plane solid metal, cored or wood-mounted cuts, or rout out unwanted parts.

In one position, the device will rout 11-point plates. By reversing the bridge slide, router is elevated to type-high position so that either wood-mounted or solid cuts can be routed or planed. When the bridge and slide are slipped off the base, a router-vice remains, with adjustments for clamping 11-point plates or type-high cuts.

## **Faster . . . Better Mounting**

A new idea is the steel grip catch. One or more catches are placed at the bottom and head of plate and when the form is locked, the catches bite into the softer metal of the plate and hold it securely. Catches are available in two heights: A, shoulder .853 inch high for 16-gage halftones and zincs; B, shoulder .759 inch high for 11-point stereos and electros, for molding or press use.

Another new idea in mounting is designed for use on newspaper base, alloy base, pre-cast stereo metal base, quads, slugs—all of the non-iron, non-steel bases. The system consists of two sorts of units of sectional base. One sort has hardened and sharpened steel pegs projecting upward from the face of the base unit; the other sort has a flange catch for use with zinc etchings and halftones.

One or more of the pegged units are inserted in the base makeup. The plate is then laid in position. A light tap with mallet and planer forces the sharp steel pegs into the soft underside of the plate, holding it securely. The flanged catch unit, 3 by 3-pica section, is placed on each side of zinc etchings and halftones, holding it securely.

## **Feeders**

Feeding and delivery have been greatly improved and refined. Suction sheet separation has been applied to the old, popular, continuous type feeder; the suction principle also is applied in forwarding the sheets. In feeding, the second sheet is firmly held while the top one is being separated. The forwarding suction device squares up and stops the top sheet before it leaves the bank, giving greater leeway on poorly jogged stock and insuring register at the guides. The substitution of suction for combing devices removes the problem of avoiding sheet marking.

There are several types of stream feeders for flat-bed and offset presses. All types forward the sheets from the pile on to the conveyor which is slowed down to carry the sheets, underlapped



(dove-tailed, shingle-wise), in slow motion to the guides. This permits high speed without endangering register. The same principle has been applied to obtain slow-motion delivery, contributing to safer handling of the printed sheet with less chance of offset and smearing. Thus register and safer forwarding are protected while production is increased.

#### **Sub-Chases for Counters**

Most printers use numbering machines and know the trouble and time lost lifting and unlocking forms to remove them. Forms locked to hairline register no longer need be unlocked in mid-run. With the sub-chase, machines may be locked up and made ready without waiting until counters are available.

The sub-chases are made to standard pica measure, breaking on the even pica or nonpareil. Inside dimensions fit numbering machines, making justification unnecessary.

Also available are dummy proof blocks of hard, die-cast metal which may be inserted in forms in lieu of the machine. The blocks are of the same size and have a facsimile impression of plunger number and six figures.

#### **Vertical Rotary Miterer**

With this miterer all brass or other metal rules up to twenty-four points in thickness may be mitered direct from the strip without preliminary cutting to length. A complete miter—one right and one left—is made at each cut. Combination borders may be cut almost as rapidly as single rule. Joints are perfect. The automatic clamp increases speed and protects the operator. The positive-point gage sets instantly and locks automatically over a range of three to eighty-three picas. The extension gage, also furnished, permits mitering by points up to 144 picas.

#### **Static Eliminator**

Static is a big problem to many printers at those times when the simple empirical solutions fail. A static eliminator, or isolator, has been developed which appears to be a simple metal bar. No electrical connections are required and there are no accident hazards. Its length equals the width of sheet or web; thickness is one-eighth inch, width one inch. The bar is made by a patented process. It is effective for a number of years and can be revitalized.

#### **New Rollers**

Various new types of rollers have been introduced in letterpress and offset in addition to improvements in the glue-glycerin composition roller.

Rubber rollers are popular on newspaper web presses. Various types of vulcanized oil and synthetic rollers are in use in the magazine and commercial divisions. In some shops, the newer types of rollers are used as ductors and distributors with the older type rollers on the form.

In the offset and planographic plants leather-covered rollers, in use since Senefelder's day, have almost disappeared. The new rollers, made of a single material, are free from the trouble often common to composite rollers. The tough, resilient surface neither glazes nor becomes too sticky. It retains its efficiency without periodical reconditioning, is not affected by water, acids, or climatic conditions, and retains its shape under pressure when the press is stopped.

One of the new types of letterpress rollers was developed by the same chemist who worked out the rubber roller of twenty-five years ago. The core of the new roller is a soft but tough rubber. The sleeve-like outer cover consists of a flexible synthetic material with an ink-resistant printing surface which retains its tack under all atmospheric conditions. This roller does not sag, shrink, or swell and may be stored indefinitely without deterioration. Replacement of the cover makes it "new" without regrinding.

#### **Job Folders**

The faster presses of recent years call for folders that can handle the product at a speed stepped up 50 per cent.

The smaller models fold sheets 3 by 4 inches to 14 by 20 inches at speeds up to 300 feet or more a minute, or 12,000 or more an hour, make five folds—two parallel, three in right-angle section. Small signature attachments yield a range of signatures down to as small as three-fourths of an inch long on pieces used as package stuffers and enclosures for special uses.

The larger folders handle sheets from 4 by 5 to 22 by 28 inches and operate at better than 300 feet a minute or 12,000 or more an hour. At least 90 per cent of direct-mail sheets are within the scope of these folders.

The feeders are fitted with variable speed controls for edge-to-edge or gap

feeding, adjusted while running, and also variable speed control of folder while in operation.

Group folding with two or more up in multiple signatures, folded at right angles, increases production 50 per cent over single-signature folding.

#### **Stitchers**

Stitchers are streamlined and largely foolproofed. Speed is limited only by the operator's skill. Maximum speed of 9,000 operations an hour is possible with stitcher-feeder with two, three, or four stitches. Booklets from 2½ by 5 inches to 12 by 18 inches can be handled in gangs, two or more up, from 2½ by 8 to 12 by 27 inches.

#### **Round-hole Perforator**

A round-hole perforator for the average commercial shop has every feature of the larger machines. It is built in two sizes, 24 and 28-inch, and carries up to five heads, either straight or strike perforating. From one to ten sheets can be perforated at one feed and 40 to 50 feeds a minute.

#### **Local Humidifier**

Mist sprays of a mixture of glycerin and water have been introduced to keep rollers on production presses in good condition longer. They counteract the tendency to dry out with loss of necessary tack, largely dependent on a certain quantity of moisture. The vapor spray is beneficial to all types of letterpress rollers whether composition, non-melt, rubber, synthetic, or process.

The spray has other benefits—reduction in the number of washups, better distribution, cooler rollers, cleaner ink, less picking, decrease in ink doping, reduction of offset, and decrease in ink consumption—certainly an imposing list of benefits for so simple a device!

#### **Paper Drilling Machines**

Paper drilling machines, too, have been streamlined and made more versatile so that with easily made attachments slit, slot, and V-slot holes may be drilled. Another easily installed attachment provides round cornering and an angled corner. The drills have been designed to make the operator's work easier, safer, and accurate on loose-leaf forms, cards, covers, index jobs, and novelties. Two inches of paper is an average lift. The various types of drills produce from 200,000

to 600,000 holes an hour, reducing costs to insure profitable operation. Round-hole diameters range from an eighth-inch minimum to one and a half inches.

### **High-speed Stripping**

In operation, a very rapid conveyor belt carries the bottom tablet, or a composition book, from a pile into the machine. The operator can concentrate on keeping several tablets on this conveyor belt. The knife unit is automatically tripped by means of the space between each section. It travels at the same speed in cutting as does the work. No adjustments are necessary when changes are made for different thicknesses or lengths of work.

While a great favorite for tablet work, it is well suited to all work where sections are made up approximately twelve to eighteen inches and longer. The longer the section, the faster it can be fed. Speeds from 30 to 200 feet a minute are available by turning a hand wheel.

### **Automatic Spacing**

Speedy cutting accuracy, a noteworthy improvement, is possible with the modern paper-cutting machine which rapidly and accurately measures and cuts stock as desired. Capacity is limited only by the ability of the operator in supplying stock and removing the cut pile.

A spacing bar allows for a number of stops from zero to machine capacity. The back gage is set in its rear position, stock is placed in the machine, the gage moves forward to cutting position, and stop is set. Each stop is set in the same way and thereafter the machine operates automatically. The machine slows down as each stop is reached to prevent the stock from coasting.

### **Suction Feeder Reloading**

More production is possible on long runs with the reloading feeder. A four-foot pile of sheets can be loaded on elevator. Then, while press is running, elevator is reloaded. Less than two minutes is required to raise new pile. Two sets of loader beams and boards are used. As the first load is fed off the pile, the second is placed on the other loader board. When last sheet is fed from the first pile, board and beams are removed and new pile is raised by pressing button. As clutch is engaged, elevator chains move upward carrying pile to feeding position.

## **A DOZEN YEARS OF OFFSET GROWTH**

SINCE 1927 a wave of interest in offset has developed among printers that was scarcely a ripple before that time. Contributing to the build-up of interest in this process was undoubtedly the consistent campaign which Harry Porter recalls his company began in 1923, in "Printer's Ink Monthly," and continued until after the consolidation that created the present Harris-Seybold-Potter Company.

In that campaign, inserts were prepared to illustrate the various uses to which offset lithography could be put. These inserts were supplied to lithographers and lithographic salesmen and redistributed to prospects for offset printing. By showing definite applications of the process to problems like their own, the campaign accomplished much in creating a demand for more offset work among non-users.

The introduction of the small Multilith by the Addressograph-Multigraph Company in 1927 was another contributing factor in making the country more offset-conscious. Much advertising was done for this office application of the offset process. It caused a great many more people to realize that offset lithography has a real place in printing production.

When the Monotype company took over the Directoplate Company it found itself in the offset platemaking

business. A great amount of special work that had been done by letterpress with monotype-set type had started going to offset, tariff work, for example, to mention but one.

The Miehle company, since 1927, has taken continued interest in offset, and this again is another mark of recognition and evidence of offset continued growth.

Striking evidence of the rapid evolution of offset presses is found in the statement by Mr. Porter that "there is not a single press in our offset line now that we had in 1927, while the oldest machine in the line today, known as EL—a 22 by 34 inch press—was designed after the last New York Show." The first model of this press was shipped in 1931.

At the time of the 1931 New York show, Mr. Porter says that the company had in operation, or sold, approximately one hundred two-color offset presses of both the Harris and Potter types. At the present time, over 300 multicolor-offset presses of the company's manufacture are in use. The majority of them, of course, are two-color machines.

Although the four-color offset press was only a dream in 1927, the first one was already shipped by November, 1931. Since that time, a total of twenty-five multi-color presses have been sold by the Harris-Seybold-Potter Company. Two or three of them are three-color, the rest four-color presses.

Emphasis in offset press design and equipment has been speed for the most part, since 1927, according to Mr. Porter. He feels the speed factor has often been over-emphasized and points out that the machines have also been built more ruggedly, and that the application of the stream feeder, in his company's experience, has been a real success.

"There is no question," he adds, "but that today offset presses are delivering a greater percentage of the running speed in finished sheets than they could possibly do in 1927."

What of the future of offset? Who can say! The march of progress goes on . . . and the march of offset with it. Another decade and another Graphic Arts Exposition will probably witness developments undreamed of now. We have only to recall what the last twelve years have wrought to realize that the future will be rich!

## **CONVENTIONS**

*Here are the scheduled dates and locations of the principal conventions of graphic arts and allied groups to be held in New York City in late September and early October:*

**September 20-22** National Industrial Advertising Association, Hotel New Yorker.

**September 24-29** International Association of Printing House Craftsmen, Waldorf-Astoria.

**September 25-28** Advertising Typographers Association of America, Incorporated, Belmont Plaza Hotel.

**September 26-28** Direct Mail Advertising Association, Hotel Roosevelt.

**September 29-30** International Trade Composition Association, Belmont Plaza Hotel.

**October 2-5** United Typothetae of America, Hotel Commodore.

TYPE IS A COLD, metallic substance, but there can be magic in it when it appears on the printed page. Cold, black letters can tell of ships and distant seas, of furnaces blasting fire into the night, of children at play, of life, of sudden death, of shipwreck, and hurricane. Type can whisper, type can shout. It can picture an airliner swinging over Nebraska wheat fields or an automobile rolling up mountain curves. Type can coax. It can wheedle and cajole. It can convince, stir to anger and fear, instill envy or admiration, or the desire to visit far places. All the emotion, the imagination, the skill of the world's writers become alive—in type!

When we speak of typography we mean, "type and its use." No matter how beautiful the type design may be, its appearance on the printed page depends on good typography. The combination of type in words, the arrangement of words in lines, the assemblage of lines into pages—all go to make up typography. The word includes not only type, but typesetting, spacing, leading, and arrangement.

While there have been many changes in type design throughout the years, type and typography have not always shown parallel trends. Some of

# Trends in Layout and Typography

BY V. WINFIELD CHALLENGER

the type faces used today were made by capable designers hundreds of years ago. They have survived because they are sound and good. Some of the newer type faces employ their basic design. Many other type faces designed for the mode or the moment have skyrocketed for a brief burst of glory and then faded out because they were not fundamentally right.

It is possible to trace more definite trends in the use of type than in type itself. Typographic trends have been influenced and have kept pace with the trends in architecture, in women's dress, furniture, and merchandise de-

sign. When frills, laces, and ruffles were in vogue, the typography of that day was cluttered with superfluous decoration. When the artists, architects, and designers began to get away from frills and make things more practical and less ornamental, typographers reflected this trend in their work and printing became more practical. The printed piece of today is stripped of its non-essentials and yet is more attractive and has a better chance of being read than the pieces that employed superfluous decoration.

An examination of specimens of typography as produced in the 1870's

**FOR MELLONVILLE AND ENTERPRISE,**  
VOLUSIA, PORT BUTLER, AND WELAKA.

**THE STEAMER**



**M. W. BARNETT**  
CAPT. THOS. E. SHAW,  
Will leave JACKSONVILLE every  
**THURSDAY MORNING,**  
at 9 o'clock; PALATKA every  
**FRIDAY MORNING,**  
for the above places, stopping at all the intermediate landings. Returning, will leave MELLONVILLE every  
**SATURDAY MORNING,**  
at 8 o'clock, PALATKA every  
**MONDAY MORNING,**  
at 7 o'clock.

FOR FREIGHT OR PASSAGE APPLY ON BOARD, OR TO  
THOS. HARTIDGE, AGT.  
Jacksonville.  
McHUGH & McWILLIAMS, AGTS.  
Palatka.  
September 22, 1898.

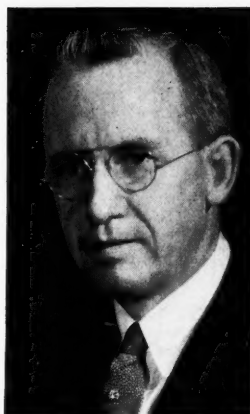
**1870. READ CAREFULLY! 1870.**  
**THE GREAT CENTRE OF ATTRACTION**  
IS AT  
**A. K. HOFFMEIER'S,**  
Furniture, Upholstering, Bedding and House Furnishing Goods,  
Without a rival, being the Cheapest and Largest Stocked Ware Rooms in the City. All persons going to or who intend going to Pennsylvania, are particularly invited to call at  
**NO. 23 EAST KING STREET, LANCASTER, PA., NO. 23**  
After seeing elsewhere, and examine my large and well selected stock, consisting of the largest variety of  
**Hall, Parlor, Dining Room, Chamber and Kitchenware,**  
Look to your **HEALTH!** There is no use in talking, for the best **Bedding** **MATTRESSES,** **PILLOWS** **AND** **BOLSTERS,** are without dispute the best **Bedding** now in use.  
**CORK SHAVINGS SOLD BY THE POUND.**  
**ALSO HAIN, HORN, EXCLUSIVE, SPRING, REP, HAIN CLOTH, &c.**  
Spring Beds, Spring Mattresses, Pillows, Bolsters, Parlor Bedding, Cushions, Blankets, and Coverlets of every kind.  
**Venetian Blinds Made and Repaired in the Latest and Best Manner.**  
Louvered in good style. Shades, Trimmings and Patterns of all kinds. Lace, Damask, and Ray Window Curtains Walnut and Oak Carriages made to order. Floor Oil Cloths, Door Mats and Parlor Rugs. Looking Glasses, Mantle and Floor Closets made to order. Picture Frames and Hangings, &c.  
**ALL GOODS AND REPAIRS PROMPTLY FILLED, AND WARRANTED AS REPRESENTED BY**  
CHILDREN'S CARRIAGES OF EVERY KIND, EXPLORER WAGGONS, CARTS, FANBOYS, GIGS, ROCKING HORSES, SLEIGHS, VELOCIPEDS, &c., &c.  
**5000 SVO PHOTOGRAPH FRAMES,**  
Which will be sold retail and for cash only at the trifling sum of 50 cents, with glass and back complete, what is sold elsewhere at \$1.00.  
Please Remember the Place and Give Me a Call.  
**No. 23 East King Street, Lancaster, Pa.**  
Write to Office or Inquirer Room Job Printing Office and Book Bindery, No. 28 North Queen St., Lancaster, Pa.

Pre-Civil War display types . . . crudely ornate and awkward of line

In 1870 same types, layout nil, far removed from today's streamlining



***V. Winfield Challenger, the Director of Typography of famed N. W. Ayer & Son advertising agency, of Philadelphia, tells of changes that came in the march of typographic progress. Mr. Challenger has long been active in the Craftsmen's movement; one of America's most serious and most able followers of the printing art and observer of trends***



and in the 1880's, would classify them, for want of a better name, under such a title as "long and short line, bold and light type."

The typographer in handling advertisements or announcements had a very definite impression that if he began with a long line, his next line had to be shorter and his third line shorter still—making an inverted pyramid. If he began with a short line, the next one had to be long. The trick here was to select a type face that would make the length of line desired, regardless of whether that type face harmonized with the line preceding or following, or, for that matter, with the remainder of the job. If the line had a number of words or characters in it, a condensed letter was usually used. If the long line was desirable and there were only a few words or characters, an extended or expanded type would be the choice. The typographer made no attempt to use the same type series. Apparently it was his ambition to use as many different kinds of type as he might have in the shop. Seldom was the job easy to read. More frequently the unrelated type faces were intended to give display or emphasis to every line.

In all fairness to the printer, it should be said that his copy was not prepared by the skilled writers we have today. "Copy" was written either by the advertiser or by someone in the print shop. Too often it was a series of statements rather than an advertisement as we now think of one.

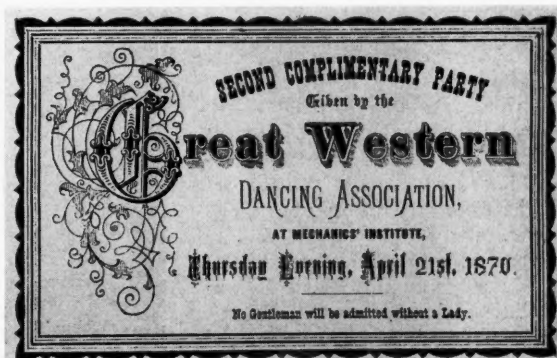
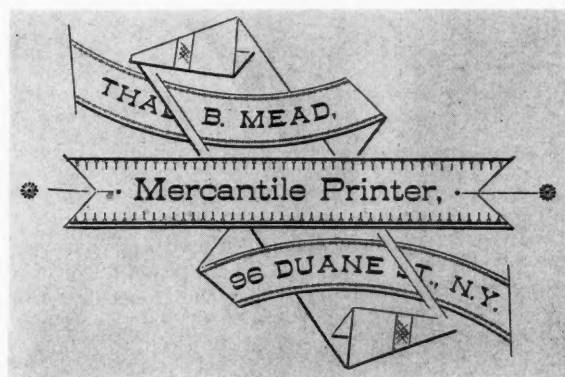
The "rule bending" craze was probably the next definite trend in typography. During the "gay nineties," when women's dress was covered with frills and laces, the typographer followed the trend with twisted rules and queer-shaped lines. The hours that compositors spent in bending, twisting, and curving rules and fitting them around equally bent and twisted lines of type, would have made our present-day cost sheets inadequate for recording so much time. Some of the bill-heads and business cards produced during this period were a "work of art." Part of the equipment necessary for a compositor during these days was plaster of paris and the glue-pot. These he needed to fill in the odd-shaped spaces where quads and spaces could not be justified.

The typefounders, recognizing the demand for ornamentation, worked

with feverish haste to supply flowery borders, ornaments, dots and dashes, and cut-off rules. With these the compositors would add meaningless flourishes at the beginning, the end, above, or below a line. Many type faces, too, were designed incorporating these curleycues, and the urge of the time was to crowd in as much decoration or ornamentation as possible rather than to make the message easy to read.

At the turn of the century, the rule-twisting trend was dying a slow death, but because of the desire for ornamentation, another craze known as the "panel period" soon developed. Every conceivable kind of job—from letter-head to shipping tag—was paneled in one way or another. Rare indeed was the title page of a book that was not made up of a series of panels. There seemed to be more sense and reason for paneling and typefounders encouraged it because of the increased sale of brass rule. But here again the compositor's time in building panels became a cost factor and the compositor was forced to discontinue its use.

Twenty-five or thirty years ago, after the paneling period, there was a time when typographic style seemed to be drifting and lacking definite trend. There were several good type faces like Caslon, Jenson, Scotch Roman, De Vinne, and Cheltenham. The layout man and the artist as we have them today have not yet entered the printing scene, but each shop boasted of the work of its star compositor. To these compositors was given the responsibility for format, type selection, and general appearance. They studied the work of the masters like Caslon, Caxton, Bodoni, Morris, and others and tried to take something from it which they could adapt to their own particular jobs. During this period many books and



*Late in the 80's rule bending—not readability!—reached zenith*

*Elaborate, floreated initials, like the "G" above, died but recently*

pieces of advertising matter were produced that took on, as far as typography was concerned, a look of excellence and dignity. There was a revival of the use of Caslon Old Style type and such men as Will Bradley, who exerted a great influence upon

## HARDWARE Dining rooms

DEVINNE

## HAIR PINS Look here

POST

## ART OBJECTS Lovely pictures

CHELtenham

## SHOE SALE Factory Price

FOSTER

Top to bottom: De Vinne, Post, Cheltenham, and Foster. Roman publicity types which came into use around the year 1900

the typography of his day, designed and produced many original pieces of printed matter.

Typography, however, was governed very much by "rules" which had a tendency to restrict originality. A line of type of a given point size could not be over or under a certain length. Certain size type required a given amount of spacing. Old style letters were not used with modern, *et cetera*. These and many other rules were studied and adhered to rigidly.

Benjamin Sherbow, who was a typographic luminary in that day, had a short experience but created a lasting influence on typography. He recognized that certain "rules" should be observed, but he did not hold himself too rigidly to them. He was interested more in the "intent" of the rules than in the rules themselves. He was among the first to advocate that the first essential of good typography was readability. In his little book, "Making Type Work," he emphasized three fundamentals: (1) "advertising must command attention; (2) it must get itself read;

## THE SEATS OF THE MIGHTY

BEING the Memoirs of Captain ROBERT MORAY, Sometime an Officer in the VIRGINIA Regiment, & afterwards of AMHERST's Regiment.

By GILBERT PARKER, Esq.

AUTHOR OF *Pierre and His People*, *When Valmond Came to Pontiac*, *The Trail of the Sword*, *The Trespasser*, Etc.



New York: D. APPLETON AND COMPANY. Mdxcccxcvii

Will Bradley was a mighty influence in typography, holding that beauty and light tone were vital type qualities. He was active in the revival of the Caslon type face

(3) it must get itself understood." The wide line spacing so prevalent today is due, in no small degree, to the earnest, persistent emphasis of men like Sherbow that "type must be made easy to read."

While this was going on, another factor injected itself into the printing industry which presented many new problems to the typographer. Machine typesetting, because of its speed and economy, was replacing hand composition, but it gave a "ma-

chine appearance" to the typography that was less pleasing. Type designers attempted to fit their type design to the machine rather than have the machine designers fit their machines to the type, with the result that many of the tried and true faces were distorted. The typography of that day took on a mechanical look and it was easy to differentiate between the book or printed piece that was set on the machines and that set by hand.

The manufacturers of machine composition equipment, recognizing the shortcomings of these type faces, prepared to overcome them. They hired competent type designers and conducted research work in the manufacture of machines which resulted in overcoming the handicaps and the distorted faces were replaced by others of good design. Machine composition of today approximates, in all respects, hand-set type with machine economies.

It is not possible to mention by name all the splendid designers who made such valuable contributions to

## Li Hung Chang

Li Hung Chang declined to go to the races because he said it was already established that one horse could run faster than another. Why should a man look at machine-made clothes when he can be hand tailored for the same money?

MEN'S SUITS \$30 TO \$65  
TOP COATS \$30 TO \$65  
HAND-TAILORED AND READY



Franklin Simon & Co.

FIFTH AVENUE

Men's Clothing Shops, 8 West 38th Street  
LOCATED ON STREET LEVEL

Newspaper advertisement of 1920 reflecting influence of Sherbow who "sold" typography to advertising profession. Plain types in unquestionably readable sizes and direct, uninvolved layout were advocated and featured

type design in the machine composition field, but no record of American typography would be complete without at least mentioning the name and referring to the work of Frederic W. Goudy. No other man has designed so many usable type faces.



An early American Type Founders circular by Bradley to promote use of Cheltenham

During this period of drifting and the introduction of the typesetting machines, the artist and the art director were gradually but surely working their way into the printing scene. They were being employed not only by the large and progressive printing establishments as "layout men," but advertising agencies were making a more extensive use of their services in the

**M'sieu le Voyageur**  
a bird of passage

TOWN & COUNTRY is one of his few fixed habits... He looks for it in the lounges of his favorite hotels... And it gives him nostalgia for Fifth Avenue when he is lounging in the Bar Marquet Biarritz

Like himself  
TOWN & COUNTRY has formed an objective viewpoint of the world at large... It gives the cut direct to unimportant places and dreary trips... M'sieu does himself well and expects his chosen magazine to aid and abet him...

He reads  
TOWN & COUNTRY because it is world-conscious... wise in the ways of ships and places... a provocative catalog of the lure and luxury of modern travel

SINCE 1925  
TOWN & COUNTRY has published in one of a million lines of advertising ANNUALLY...over 1000 pages

**Pointing Toward Two  
Answers to Gift  
Problems**

**Men's Custom Made  
Shirts and pajamas**

Remember those a few who have been told to wear Custom Made Shirts and Pajamas in 1921 like to know? Well, they are now actually wearing them. The Custom Made Shirts and Pajamas are made to order and are available in 1921. The Custom Made Shirts and Pajamas are made to order and are available in 1921.

**MARSHALL FIELD  
& COMPANY**  
THE STORE FOR MEN

Jitterbug living came on apace giving to some opportunity to spotlight themselves as pioneers of a new day with glamour and "umph" the apparent sole objectives. Typography, art, and music misinterpreted the modern concept, "Form follows function." Despite considerable pressure, 90 per cent of typography remained sane, as The Inland Printer predicted that it would at the time

designing of advertising literature and the layout of newspaper and magazine advertising. Fortunate indeed was the printer who combined his knowledge of type with the specialized ability of the artist or the art director.

This influence is likely to be further enhanced as time goes on because art schools are now including in their curricula a study of type faces and how to use them. When an art man with this training begins to make layouts and specify type styles, he has a better understanding about how they will harmonize with his layout.

The printing and advertising fraternity made a very definite effort about 1925 to throw off the restraining "rules" of typography and the restrictions of machine composition and do something different—even though it transgressed the accepted fundamentals. This urge coincided with a similar trend in architecture, merchandise design, and other lines.

Almost overnight, we found ourselves in what is known as the "modernistic" trend. The desire for the unusual, out-of-the-ordinary, brought forth advertising and printing that seemed to have no unity of design, no harmony of type, and was difficult to read. In some instances, confusion seemed to be both the aim and the result, specimens of that era indicate.

The artists and printers threw all caution to the winds. Length of line meant nothing. Size of type or the relation of the type faces in a given job were not considered. "If we had rules before, let's break them now" was the order of the day.

Out of it all came a number of unusual type faces created by designers to supply the demand for queer and odd shapes. Some of these faces, however, had a very short life. In this search for new type faces that could be used in "modernistic" layouts, there was a revival of such splendid faces as the Bodonis, Scripts, Cursors, and Gothics. The Bodonis were adopted as they were. Some of the others were modernized. The scripts were made a little more flowing and heavier of line. The gothics were made less stiff—were given more beauty of design. The natural development was the very popular and useful sans-serifs series.

Out of this craze for the unconventional, the printer with the aid of the art director has developed a safe and sane modern style of American typography which in arrangement and de-



En route to or from San Francisco plan to spend several glorious days at the West's most beautiful and luxurious resort...the Santa Barbara Biltmore. Here, among the garden estates of Montecito, sun and sea and flowers work their gentle alchemy...transmuting the dross of cares into the pure gold of contentment.

Architecture, in its change from the old order, held fast to the concept "Form follows function" and now typography has also come into step. Above are the worthy qualities of color and punch—uninvolved and eminently readable. Note contrast it presents to Simon advertisement on page 74

sign probably surpasses anything that has been produced heretofore. It is not only beautiful to look at, but it is easy to read and effective in result. Editorial and advertising pages of class magazines are splendid examples of good modern typography. Here illustration, decoration, and type are so blended they appear as a harmonious unit and not different elements. Type may be set on an angle or in odd shapes, but it is still easy to read.

This has been achieved by the collaboration of the artist in contributing his artistic touch, the typographer's skilful use of type, and the help of the type manufacturer (both machine and hand) in producing good type faces.

Even though the layout man and typographer of today does not restrict himself arbitrarily with rules, he has



a keen sense of what is artistically correct and what is fundamentally good taste. American typography has taken a long step forward in the past ten years and set a high mark of excellence and forward-thinking which young men entering the industry would do well to study.

★ ★

### Meet Mr. Compound!

EVERY WRITER, every editor, every typesetter, every proofreader, and everyone else having to do with the spoken or printed word will want to have Alice Morton Ball's new book, "Compounding in the English Language," if for no other reason than to have close at hand the alphabetic list of compound words which occupies nearly one-half of the book. With this handy reference list you can tell at a glance how words should be compounded—whether or not the solid form or the hyphen should be used.

At the beginning, Miss Ball goes into a rather thorough analysis of the rules laid down by the various authori-

finally crystallizing her deep insight and knowledge of the subject by the formulation of clear and understandable rules, with few exceptions, which may be referred to as fundamentally basic in forming "new" or unusual compounds, whether solid or hyphenated. The whole field is completely covered. Many citations are given, and an exhaustive list of authorities. Above all, there is practically a cross-index, making it a ready reference for the busy publisher, proofreader, printer, or author—in short, for all those who are interested in writing intelligibly and, of course, *clearly*.

Miss Ball is well equipped for writing a book of this technical nature. Shortly after the founding of the Carnegie Endowment for International Peace, she became associated with its division of international law, and later on was placed in charge of its general publications, where she drew up her first system of compounding for use in connection with those publications. She also became a member of the departmental advisory board for the re-

The present volume is the outcome of the work and careful study in compiling these two volumes. It should have much to do in simplifying this rather complex subject.

It is published in the hope that it will contribute to a greater and better understanding of the compounding (solid and hyphenated) of English words, and thus aid in bringing about more uniformity in general practice.

"Compounding in the English Language," priced at \$2.50, can be secured through THE INLAND PRINTER's book department.—W. M. B.

★ ★

### Third-Class, Sealed

A third-class, open-flap envelope "with the appearance and advantages of first-class mail" has been introduced by the Gaw-O-Hara Envelope Company, Chicago. The major portion of the "Ope-N-Seal" envelope's flap tucks over the enclosure in the regulation manner, locking in the contents, yet permitting postal inspection. Only a small tab at one end of the flap is

## HISTORICAL EXHIBITS FEATURED AT EXPOSITION

• The Fifth National Graphic Arts Exposition, from September 25 to October 7, in Grand Central Palace, New York City, promises to be memorable in the history of printing for several reasons. One of them is that the Government has issued a commemorative stamp to celebrate the event.

With a World's Fair in New York, a dozen organizations connected with the Graphic Art industries will hold conventions in the metropolis during the Printers Exposition period. Besides showing the latest in printing equipment and precision machinery in operation, the Exposition will inaugurate a special educational feature with an exhibition of historical prints showing how photography has joined with printing in giving the world, through the graphic arts, the beautifully illustrated printing to be seen in our periodicals and advertising.

It will surprise visitors to this Exposition to find that the first person to connect, in a practical manner, the color camera with the typographic and lithographic press was William Kurtz—a modest artist, photographer, and photo-engraver who lived at 9 East Twenty-

third Street, New York City. The Kurtz studios, later used by the American Art Associations, still stand. The great artistic genius lost his fortune in perfecting his achievement. Kurtz passed on and has been almost forgotten. Now the Exposition brings honor to this citizen and credit to his country for his work.

New York, generally regarded as rather indifferent toward its great men, will learn from this exhibition that portraits by photography, the first halftone, first photo-color printing, first illustrated daily newspaper, first typesetting machine, the first successful typesetting machine, and the first picture in colors over a telegraph wire—all came from New York.

Another thing that will be observed by art lovers is that some of the early work in halftone cannot be excelled today. These exhibits may be in monotone, two printings (duographs), or three printings in three colors, as Kurtz did with inadequate machinery and unstandardized inks. Despite the handicaps, they are still satisfactory.

Now that daily newspapers all around the globe carry halftones, it will be in-

teresting to see, at this Exposition, the first halftone in the New York *Daily Graphic*, of March 4, 1880. Also shown will be halftones engraved by the artists who drew the illustrations with dates of December 25, 1880, and one halftone, 24 by 17 inches, made in 1881. There is also a halftone for a window poster from Philadelphia dated 1880, 26¾ by 17¾ inches, although the first screen is said to have been made in Philadelphia during the winter of 1885-86.

While on the subject of newspaper halftones, it is interesting to know that the maker of these first halftones was cross-examined in 1930 by the editorial staff of the London *Times* in order to sustain the paper's belief that the first halftone was made in London in 1882. When the New Yorker showed a newspaper with halftones he had published in 1880, the chief of staff of the "Thunderer" said, "Now we know where halftones began, but the remarkable thing about it to me is that the man who made the first halftone is so well able to tell about it after fifty years."

It is expected that the maker of these halftones will, after these sixty years, be at the Graphic Arts Exposition.

ties—the leading dictionaries, encyclopedias, grammars, and style manuals—showing the validity of certain rules and modes of compounding, and

vision of the Style Manual of the Government Printing Office in 1933 and, later, a co-author of the Style Manual of the Department of State for 1937.

sealed, on the outside, so that the contents are securely enclosed until the tab is broken. The envelope is patented by the manufacturer.

# The Pressroom

By Eugene St. John

Stamped envelope must be enclosed with your letter when a reply by mail is desired

## Die-cutting

We are doing some die-cutting, using stock like the sample enclosed. Our customer wants to use heavier stock; but we hesitate to try it because we have had trouble getting this stock to pull off the die. Can you advise us what to do? Should we get a different die made? If we do, what kind of rule should we use? The proposed board is 125-point. We are using hard steel, 2-point center-face rule now. Also, please tell us where we can obtain dies for punching a round hole through 125-point board. We want a  $\frac{3}{16}$  inch die to cut a clean round hole and a die to cut a clean  $\frac{3}{4}$  inch button.

Two important requirements are: (1.) Dress the platen with a sheet of saw steel; and (2.) use ejecting bits of rubber glued on the wood of the die, close to the rules. Another method is to lay a sheet of rubber of suitable thickness on the steel sheet on platen. After coating the wood of the die with suitable adhesive for rubber to wood, advance the press on to impression to remain until the rubber adheres to the wood. The sheet of rubber serves as an effective ejector to push the stock from the die.

## Machine Needs Attention

We are not complaining about these slugs being high or low on either end. The fault is that individual letters do not show up at all, and while others in the same line right next to them show heavy. Certainly this has nothing to do with the height of the line.

If you have to print these slugs, higher on one end than the other, the quickest way is to underlay so that the slugs are parallel to the rollers and the platen. This will help many low letters to print. Others will require a patch of tissue or folio.

There are quite a few possible causes for low letters in a slug when the mats are not faulty, such as unsuitable metal, improper temperature of metal, dull knives, and so on, and we advise that you have a machinist-operator look the machine over.

## Celluloid Transparency

Is there some one who can give us information regarding printing on celluloid transparency? At present we are printing these with an ink which dries satisfactorily within three hours, but we must rack them individually, and while results are pleasing and satisfactory, we should like to eliminate the individual racking.

It is possible that by using the non-offset spray and suitable solution, and by carefully feeling your way along, you may be able to avoid individual racking, but scuffing of the sheets must be avoided. We suggest that you inquire of the manufacturers of the spray gun, solution, and transparency just what has been accomplished to date by way of eliminating individual racking of these transparencies.

## Imprinting on Balls

We manufacture quite a volume of pitch-and-catch sponge rubber balls. Most of these are painted in solid colors; but a smaller, though quite a large, number is imprinted with type or illustrative cuts. At present, we do this imprinting with a rubber stamp. However, this is not wholly satisfactory as quite often a smudged, not-too-clear effect is obtained. Do you know of any other type of decorating process that gives a better, clearer effect on curved surfaces?

The silk-screen process is well adapted to this work. Also, consult manufacturers of special machines used to print on round and oval objects such as grape-fruit, oranges, nuts, and other "three dimensional" objects.

## Respirator and Mask

Would one who suffers from bronchial attacks during winter months be likely to experience trouble when working as a printer, on account of breathing dust and like material from printers' ink? If so, will the wearing of a mask which filters the air he breathes help prevent trouble?

You should consult your physician as to the best available type of respirator-mask for your particular case.

## Rocking Plate, Slur

We are enclosing a sheet of a college annual which we have just printed. Note the halftone at the top of page 16. The screen on the top edge seems to have filled up and broken away. We have examined carefully the cut and press, and we are at a loss to know what causes the trouble.

The screen is in good condition and is not filled. The blur is caused by the plate rocking under impression. The bottom of the plate is higher than the top, and this causes the latter, principally, and the former to some extent, to print blurred. Remount the plate level and type high.

## Hot-wax Carbon Process

Please furnish information regarding the hot-wax carbon process as applied to bond paper as used today.

One printer leading in this field uses a special bond, coated on both sides, which is available. Then there are some regular brands which can be had with smooth or litho finish on the face. Either of these smoother bonds is better adapted to spot carbonizing than are the bonds with regular or cockle finishes. The smooth ledgers are also adapted to carbonizing.

In the hot-wax process, printing is from stereo plates on cylinder and platen presses in commercial shops. Perforating rules are commonly run in the form to make hand folding, which is necessary to avoid smearing, easy. Makeready is regular. A special carbonizing ink is used in a heated fountain for this purpose.

Wax comes from the inkmaker in barrels, about equal parts paraffin and lanolin, the latter preventing the wax from crystallizing as it cools. In the morning, a can of wax is melted at from 125 to 135 degrees F. and thoroughly mixed with the ink in the heated fountain, equipped also with an agitator to keep the short ink moving. The

above temperature must be fairly constant during the run; the printer alluded to has a patented instrument board to record the temperature.

Synthetic rollers are used because composition rollers would melt. Sheets are delivered without jogger and left undisturbed on the pile on a truck until the ink has set. If, in cutting and trimming, the knife of the paper-cutting machine comes down close to carbon spot, some careful padding is required to avoid smearing.

### Drawsheet Pulls Out

We have been having trouble with our two-revolution cylinder press of a make no longer on the market. The drawsheet tears off. This machine takes two pages of a seven-column folio. We use it almost exclusively for newspaper, posters, and large circulars. The press was installed about fifteen years ago and has always done excellent work with very little trouble.

It is plain that in the passing years there has been some wear, and that the cylinder rides the form instead of the bearers because of too much packing. A pressman friend tells us to let the cylinder down until it will squeeze a thin strip of paper on the bearers. We find the cylinder can be lowered that extent on one side but not on the other, except in one spot.

With the cylinder up off of impression (tripped), remove the bed bearers, which may need planing, following which, underlay them with hard paper to .918 of an inch. With the cylinder packed with medium hard packing, see that all units of the form are level and type high. The drawsheet must be not more than .003 of an inch above cylinder bearers.

After makeready, if you still cannot print, pull the cylinder down. This is done with the cylinder down on the impression. Turn it forward by hand until the printing surface of the cylinder bearer (which segment is worn) is out of contact with the bed bearers. Then loosen set screws, and turn adjusting screws at both ends about half an inch of their face. You may have to do this more than once before light is shut off between bearers. Finally, set the steady screws, with cylinder still down on impression. Turn the press over by hand, and if everything seems okay pull a trial impression.

After fifteen years, it is likely the cylinder journals and boxes may be badly worn and in need of repairs and refitting. The cylinder may need new bearers, and other parts beneath the bed probably need attention. In fact, it is desirable that a press machinist go over the press. Many firms make it a rule to junk twenty-year old presses.

### Overpacked Cylinder

I am enclosing samples which were run on a cylinder press. You will note the slurs which ran throughout the runs. As you can see, the slurs are more pronounced on sheets carrying more ink. I always believed the cause was poor makeready and overpacked cylinder, but now I am wondering if the cylinder is too high.

The guttering shows that the cylinder is overpacked. It should be lowered until it firmly rides the bearers, after makeready, with the sheet printed .003-inch above the cylinder bearers, when printing at speed. Afterward, adjust register rack and intermediate gear.

### Ink too Soft and Thin

Samples of the stock for this job were sent to the inkmaker before the job was run, but, as you will notice, the halftones look hazy and are not sharp. If we ran the ink light, they looked bad; and when we ran the ink heavy, they still looked bad. Will you tell us why these halftones did not turn out

better? The work was run on a cylinder job press, and we took great pains and much time to make this a nice looking job.

If you will examine the halftone dots under a glass you may note that they appear not black but weak gray. If your rollers are in good condition, you can conclude that the ink is too soft and thin for this glazed-surface paper, which requires a shorter, heavier halftone black than the one you used—assuming that you did not reduce it.

### Chalk Plate Engraving

In a recent issue you promised to send information regarding manufacturers of material for chalk-mold plate casting. Will you please send us the same information?

Judging from the number of inquiries received the old method of chalk-plate engraving is experiencing a revival. We are sending the name and address of the source of supply and details of the method.

### A Feeling of Misapprehension

Cartoon by John T. Nolf, Printer-Artist





# PHOTOENGRAVING KEEPS PACE!

*Graphic art advances in the past decade are due in large measure to the basic work of photoengravers.*

*Prompt solution of color photo reproduction is an example of the craft's alertness* ● By LOUIS FLADER

**I**T MAY SOUND TOO INCLUSIVE to say that the photoengraving process; namely, the art and technique of photoengraving, represents the biggest and most important of all contributions to the graphic arts. That statement, however, will stand analysis of the most critical kind and the writer is willing to stand or fall on the results.

The photoengraving process is basic, inasmuch as it provides a photomechanical medium for converting continuous tones into separate printing surfaces of a regular pattern. This basic principle is immutable and permits of no change as long as printing as we know it continues to be practiced. As a consequence, improvements and developments in the art and technique of photoengraving must be considered as adaptations and refinements applied to the basic principle.

Most of the changes, developments, and improvements in photoengraving come into being in the effort to meet the requirements of constantly changing printing machinery, methods, and practices. Photoengravings constitute one of the most important printing elements and consequently must be made to fit the conditions prevailing in composing rooms and pressrooms.

With the advent of multicolor printing, came new difficulties. These presented problems that could not be solved entirely by the press manufacturer, the printer, or the pressman. Only the photoengraver could cope with and solve these problems and it was his ability to do this that made multicolor printing of the "wet" variety, performed on rotary presses, possible.

In a modern multicolor rotary printing press, such as the Claybourn press, for example, there are either four or five plate cylinders and one impression cylinder. The sheet travels through the press but once and during that travel receives impressions from each of the plate cylinders. These impressions follow each other very rapidly, conse-

quently there is no time or opportunity for setting or drying the inks between each impression so as to make them receptive to the succeeding colors in accordance with the practices employed in printing on single or two-color presses. While this also presented a problem to the inkmakers, who rendered excellent service in its solution,



**Louis Flader who surveys trends in photoengraving for THE INLAND PRINTER in this article is Commissioner of the American Association and has held office in other trade groups. He is well known as a speaker on graphic arts subjects**

it remained for the photoengraver to so prepare his plates that this otherwise physical impossibility could be achieved.

The photoengraver by eliminating in various ways superfluous tonal values in one or more plates of a four-color process set enabled the multiple-color rotary presses to successfully print four-color process plates up to 4,000 and 5,000 printed sheets an hour, these sheets containing four and

even five colors. At first the preparation of color process plates for wet printing was a laborious, time-consuming operation. The elimination of superfluous tones or their considerable reduction in tonal value is not easily or readily achieved. In due time, however, various masking methods were developed by photoengravers, resulting in photomechanical reduction and elimination of unwanted tones reducing, in many cases, the amount of time required and the cost of production, and making possible the almost perfect results obtained today in magazine and large edition color printing.

The effort in the letterpress printing field is to reduce the time of makeready so as to speed up production and lower costs. This has led to experimentation in printing from thin metal plates comparable to those employed in offset and gravure. Plates of that character must necessarily contain every printing element appearing in the form.

The Wale press represents perhaps the most startling innovation in that direction. Here the photoengraver stepped into the breach and produced the kind of plate needed for the successful operation of that press. The Wale press must, at this time, be regarded as a forerunner of something to come later on. Photoengravers are ready to do their part of the work immediately. In the meantime experiments are being carried forward involving the use of thin metal plates to be subsequently treated bringing them to the desired height for application to single and multicolor rotary presses. The success of this venture, too, depends upon the ability of the photoengravers to do their part. Here again the initial experiments have been successful and the photoengravers are ready to meet all requirements.

It would perhaps answer no real purpose to enumerate the many minor refinements and methods that have been developed in connection with

photoengraving, all of them useful, many of them enabling photoengravers to produce results formerly impossible. Since photoengraving is an art of reproduction, it is definitely linked to the character of the original copy which it reproduces.

The growth in the use of color in connection with printing of every description has been enormous in the last decade. In the beginning it was in the main only possible to reproduce what might be termed "flat" copy, such as paintings, drawings, designs, rugs, and objects of that description. This proved a serious handicap to the more liberal and generous use of color process plates because of the amount of time, work, and cost consumed in the preparation of copy suitable for reproduction. Then came what has been loosely termed "natural color photography" which enabled the photoengraver to pose various objects, photographically record the primary colors, and from the "color separation negatives" make suitable color process reproductions. Again, the scope of this method was limited and in due time there came on the scene the so-called "one-shot" color camera which enabled the photographer to make color separation negatives in one exposure, thus separating and recording each of the primary colors simultaneously. This immediately expanded the scope of four-color process reproduction and made it available to many users formerly denied that privilege.

Next came the making of color prints reproducing subjects in their natural colors by photographic means. Several different processes were employed, all with similar results. Again came expansion of the color field in printing, with the photoengraver meeting new problems, and showing great ingenuity and skill in coping with them and in mastering them.

While all of the foregoing developments and improvements were beneficial to the public and the printing industry, another advance was indicated. This came into being several years ago through the perfection of the Kodachrome and the Dufay color films. When Kodachrome was brought to a point of perfection that permitted its introduction it was considered more of a novelty than anything else. Its use made it possible for anyone possessing a modern camera, equipped to take 35 mm. film, to make a photographic exposure, have the film processed and, at that point, he had an

excellent color rendering of the object, person, or scene photographed. These pictures are extremely small in size, their first function was serving as slides in a projector enabling color film to be shown in enlarged size and in its true colors. The Dufay color film, while different in its structure and in the principles employed, brings about a somewhat similar result.

Again, the photoengraver accepted the challenge and in a very short time found it possible to reproduce through the medium of the three- and four-color process and in most any reasonable size miniature Kodachrome and similar films. Excellent reproductions and enlargements up to 18 diameters have been made from these miniature Kodachrome films.

The introduction of Kodachrome, Dufay, and other color films greatly expanded the field of natural color photography and color process reproduction. With the use of this material it was possible to record and reproduce, in natural colors, almost any object or scene that could be suitably lighted. Objects moving at considerable speed could now be captured, much as these have been photographed in the monotone realms of photography. Special techniques have been developed by photoengravers to successfully handle this class of re-

production and this has been varied several times to meet the conditions imposed by the increased size of Kodachrome film which now is obtainable in various sizes up to 8 by 10 inches.

The basic difference between Kodachrome and Dufaycolor film consists of the following:

Kodachrome contains three layers of emulsion, each sensitive to one of the primary colors. After processing, a full color transparency, practically free from grain, is obtained. Lack of grain makes it possible to enlarge Kodachrome film to 18 diameters and more while retaining adequate depth of color and freedom from grainy or granular appearance in the reproduction. The Dufaycolor film does not carry the color values in continuous tones, as in the Kodachrome. Instead, it carries them in lines resembling the rulings on a halftone screen. These lines are extremely fine, about 1200 to the inch. Each of the primary colors is recorded as a line. The proximity of these lines produces an optical illusion which is accepted by the eye as a continuous tone. Because of this line structure, Dufaycolor has certain limitations in the matter of enlargement, for when the lines in the color film are enlarged beyond a certain point they conflict with the lines of the halftone screen.

*(Concluded on next page)*

## NEGATIVES WITHOUT USING CAMERA

● A method for making letterpress and offset printing plates which seems to be the essence of simplicity makes use of a new product called Graphofilm by the inventor.

Graphofilm is a transparent film with a black opaque coating over which is a second coating of white. The artist draws his sketch directly on the white surface, with pencil or crayon, and then traces over the lines with a simple instrument which cleanly and sharply removes both coatings. In fact, it appears to be possible to produce cleaner and sharper lines than with pen and ink on paper.

When the artist has finished, he has, without further preparation or treatment, a perfect negative ready to place in the vacuum frame. An important advantage is the uniform opacity of the film. It is denser than standard-developed, photographic film, and requires no brush opaquing. The use of the product is confined to line and Benday work.

The example submitted shows a three-color job which was produced by the Graphofilm process. The key plate was drawn on a sheet of Graphofilm and from this plate two proofs were printed on two sheets of Graphofilm. This furnished an accurate guide for the other two colors, and the same artist made the color separations. The halftone negatives and few lower lines of type were stripped in on the Graphofilm. Since Graphofilm does not come into contact with any chemicals and does not shrink, close color register is constantly assured. Because of their stability, Graphofilm negatives may be preserved indefinitely without changing dimensions.

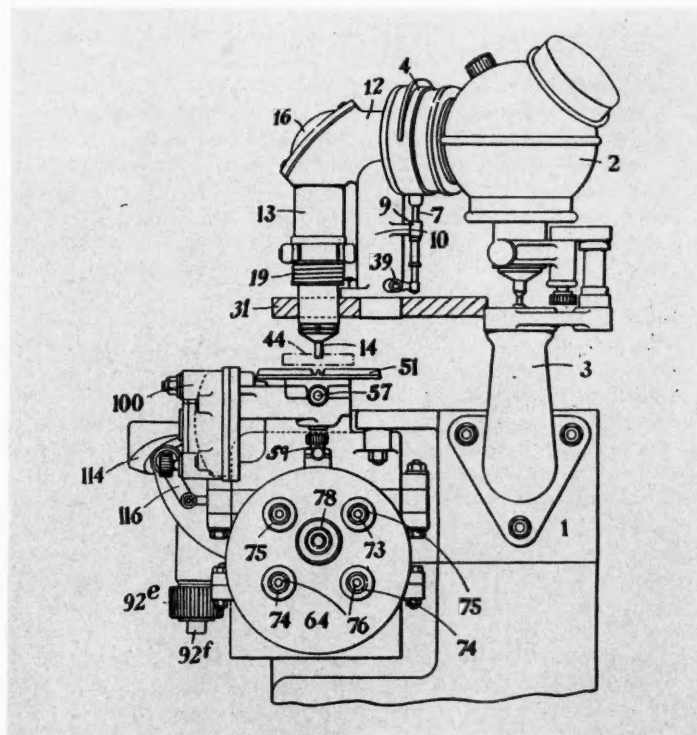
While the average printer will appreciate the many steps the new process saves, newspaper and publication printers especially will grasp the advantages of having a drawing in the form of a negative handed to them near deadline with no camera or chemical development to wait for.

In making color process reproductions of Kodachrome and similar color film, and to bring them within the public's reach, both as to time and cost, the photoengraver was obliged to develop a new technique. Ordinary photographs are made by reflected light. In other words, light reflected from the object in front of the camera. The usual method employed in reproducing color film is to use transmitted light; namely, light passing through the color transparency. This calls not only for changes in shop practice and in technique, but also for involved invention and construction of special apparatus. These requirements were met with astonishing rapidity and came in every instance from practical photoengravers who had spent years in the trade. Projection apparatus, optical instruments, and special lenses were constructed to transmit the light through the color film, the photoengraver's lens, and the halftone screen and project each one of the primary colors on to the light-sensitive negative plate in the back of the camera. There are some variations from this procedure, depending upon various conditions. It is safe to say, however, that any transparent color film containing good tonal and color values, with the proper structure, can be reproduced by the photoengraving process.

While all this has been going on, the photoengraver has perhaps said too little about the part he has played in these developments. Consequently, he has received little or no credit for his contribution to the graphic arts generally. Photoengravers have done more than develop their own craft and technique. They have furnished the basic information and methods that have found their way into all competing processes. Few of the latter have ever originated anything of basic importance in connection with reproductive processes. All have followed the lead of the photoengraver, drawing upon his experience for their own requirements. The graphic arts as a whole owe a greater debt to photoengravers than has ever been acknowledged. Much of the photoengraver's experience and technique has been taken over, in one way or another, by competing processes and generally applied to increase speed of production with scant regard for quality. The tendency of this has been to depreciate the noble and honorable craft of printing and to reduce its exponents to lower levels in craftsmanship.

## INVENTS PHOTO-COMPOSING DEVICE

By Edgar D. Ward



**P**ROTECTION has been granted by the British Patent Office to George Westover for a new photo-composing machine, the operation of which is based on the principle of the monotype single-letter composing and casting machine. The perforated paper ribbon as now produced on the monotype keyboard is used without alteration, but for the casting machine a photographic apparatus is substituted.

A master negative of 12-point characters of similar design to the die-case is controlled by the perforated paper ribbon; the "centering pin" is a beam of light. The film is 16 mm. wide and passes beneath the master negative, each character being photographed separately. Spacing is achieved by means of the justifying mechanism, controlled by the perforation in the paper ribbon.

Referring to the illustration, taken from the patent specifications, the light source consists of a lamp (2), which shines horizontally on a reflector placed obliquely from right to left in the housing (12). The beam is reflected down the vertical tube (13) on to the selected character in the master negative (44), passing through a cam-

era lens (59), the opening of the shutter exposing the sensitized film immediately underneath. The film is contained in the case, the outside cover of which is marked (64). Beneath this cover are four spools, one at the bottom left-hand side taking the roll of unexposed film, which passes upwards over a second spool, and from there beneath the master negative to a third spool, and finally down the right-hand side to a winding-up spool. The negative has 225 characters arranged as in the monotype die-case.

When completed, the product of this machine is a roll of film containing justified lines of 12-point size placed end to end. After development, this film passes to a second or makeup machine and is rephotographed line by line in column form. It is in this second machine that size is determined.

The impression I gained from a talk with Mr. Westover was that he had no false or revolutionary ideas as to relative merits or commercial value of photographic composition of text matter as compared with mechanical composition as it now exists.

He puts the position in this way: For letterpress printing, which he



thinks represents perhaps 95 per cent of the present volume of printing, the existing means of mechanical composition are probably as adequate as they could well be, but for the odd 5 per cent, which includes offset and gravure, it was not unreasonable to imagine that some better method could be found. As these processes are dependent on the use of photographic reproduction of text in the final stages, it is only logical to produce this result by photographic means. Moreover, and this appeared to be the main plank in his platform, the positives and the negatives obtained are necessarily of better quality than type proofs permit.

The Westover machine has been designed to provide print in the accepted form, without restriction as to point size, spacing, justification, line measure, or depth of page. In other words, the users of this machine are not asked to accept any unusual limitation. His present proposal provides for lines in eight to twelve point measures, twelve and a half to thirty-two and a half picas wide, advancing by two and a half ems steps.

Although the master negatives are 12-point in body size, the same negatives are not used for all point sizes. The set width of the 12-point characters in the original master negative vary according to the final point size of the text. Thus, the smaller body sizes may be as much as 20 per cent wider than the corresponding characters in the larger sizes.

In a modification of his invention, Mr. Westover provides for the setting of larger sizes. He also replaces the film by what he calls "slugs," which are rectangular-shaped pieces of glass, celluloid, or other suitable material. The size of these slugs varies with the size of type being photographed. An 18-point size should, it is stated in the specification, be preferably three-quarters of an inch in depth and of length and thickness appropriate to the measure and body size respectively, one-eighth inch from 24- to 42-point, the height dimension may be reduced to a quarter inch, and from 48- to 72-point to one-eighth inch. Adopting these dimensions, a 9-pica em line of 9-point type would be accommodated upon a unit one and one-half inches by one-eighth inch wide by three-quarters of an inch deep.

A description is also given of the application of the invention to contact photography in addition to projection photography.

## NEWS PICTURES IN NATURAL COLORS

**T**HE INSERT on the opposite page represents a new advance in color printing in the newspaper. Production of the page from which it was cut, from photos to printed newspapers, was accomplished in ten hours—believed to be a new speed record for four-color work in the newspapers.

Appearing in the Chicago Tribune of Monday, July 17, the page, carrying reproductions of three natural-color photos, was printed on news presses having integrated color units specially designed for printing four colors in register at a speed of 36,000 forty-eight-page newspapers an hour.

The photos were taken on the afternoon of Sunday, July 16, at the second annual Police and Fire Thrill Show, held at Soldiers Field.

Ten hours after the crowd of more than 70,000 persons and close-ups of the action had been photographed in color, Tribune presses were turning out newspapers containing this page with three full-color photos requiring three different sets of four-color plates to produce. It was the first time any daily newspaper printed more than one four-color photo of a news event simultaneously with the story.

Six Tribune staff photographers were assigned to the job of taking the original pictures. Five were sent to the field with cameras loaded with color film. Four used ordinary news cameras and the fifth used the Tribune's specially constructed, telescopic "Big Bertha" to get the close-up of the burning structure shown in the lower left corner of the illustration on the opposite page. The sixth cameraman shot the scene from an airplane.

The exposed color films were rushed back to Tribune Tower where they were developed by a special process which requires about seventeen minutes to produce finished negatives.

Four separation negatives were made from the developed films from each of the three photos selected for reproduction. From these negatives enlarged, continuous-tone positives were then made on glass to serve as copy for the etchers.

To save time, the color engraving department, located on the sixth floor of Tribune Tower, installed some of its equipment in the news photo room on the fourth floor. Additional time was saved in the engraving process by the use of a new method of "staging"

and etching. The staging—emphasizing certain areas of the picture by coating them with an acid-resistant which makes the coated areas stand out when printed—was done on the glass positives instead of on the copper plates at a great saving in time.

Making screen negatives from the staged and etched positives, etching copper plates, molding mats, and casting the stereos proceeded as usual.

The reproduction of the color pictures of the Police and Fire Thrill Show on July 17 was the fourth time since May 11 that the Chicago Tribune presented a color photo record of an event in the same editions in which the event figured as spot news.

On May 11, the Tribune printed a page-wide reproduction of a natural color photo—taken twelve hours before—of a fire which destroyed four grain elevators in Chicago.

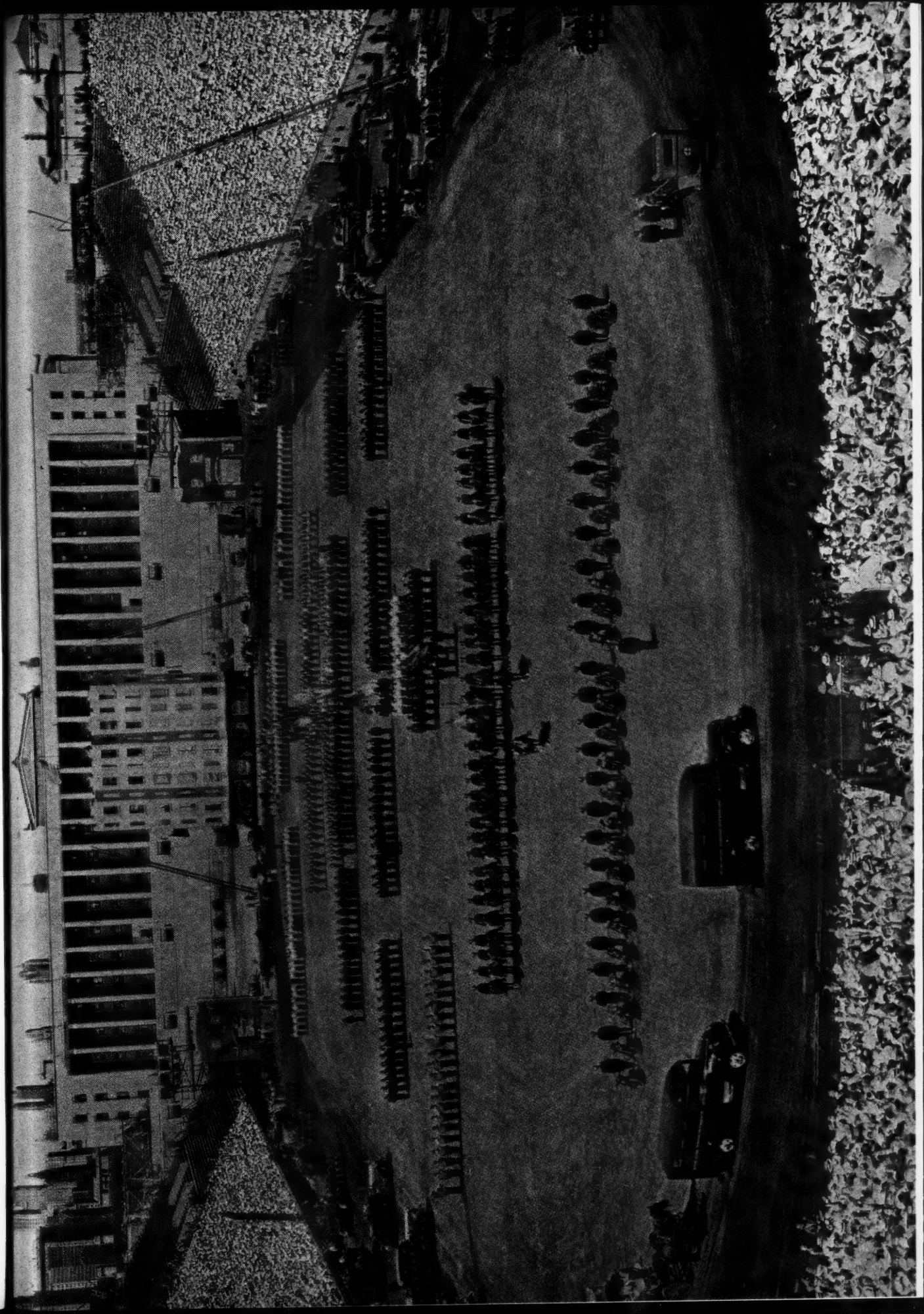
This was the first photo of a spot news event ever to be reproduced in color in a daily newspaper simultaneously with the story of the occurrence.

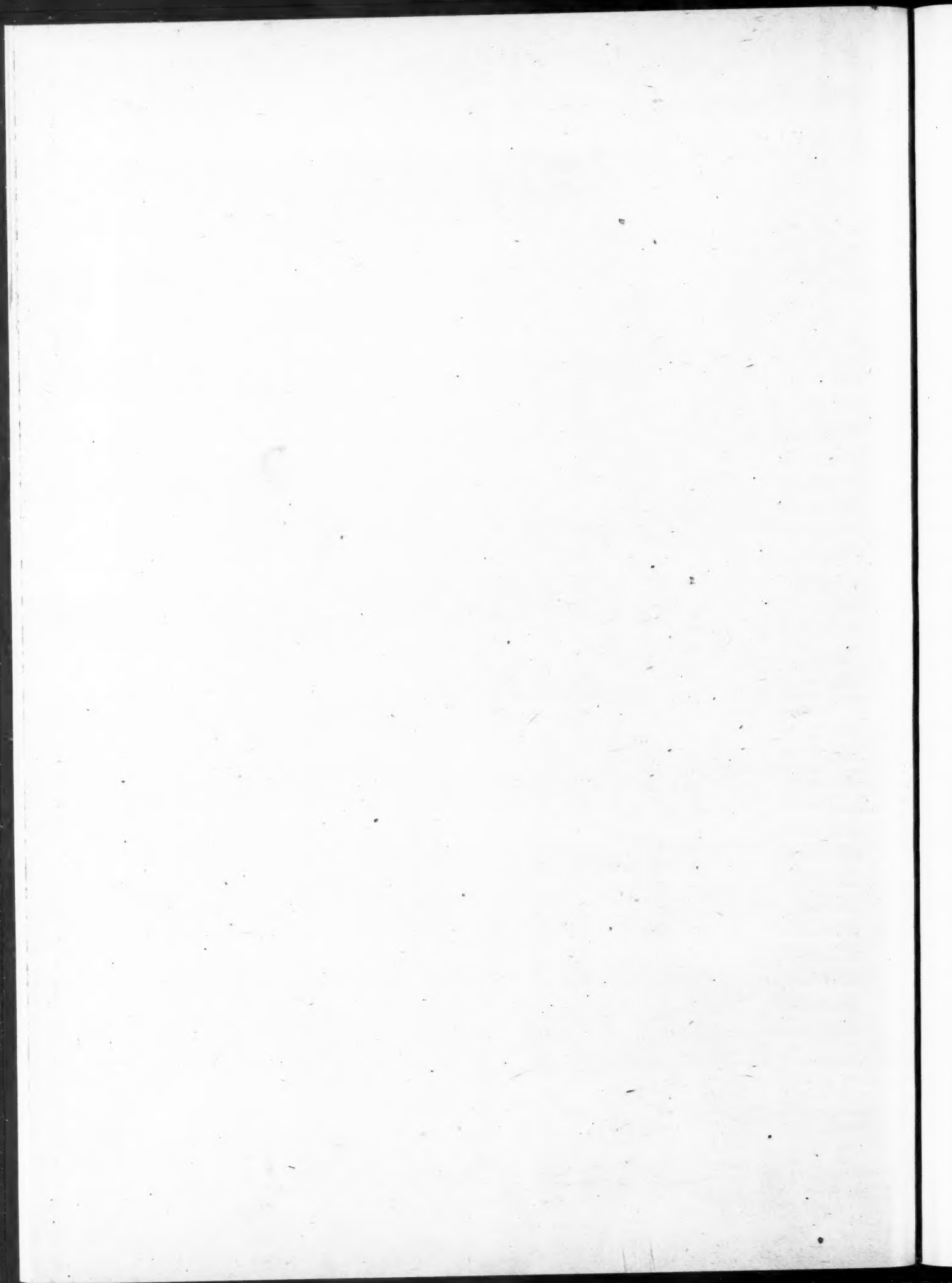
One month later three new records in the reproduction of spot news photos in color were established by the Tribune. In the issue of June 9, reproductions of natural color photos showed President Roosevelt welcoming Britain's King and Queen in Washington on June 8, thirteen hours after a Tribune photographer had recorded the ceremonies. This was the first time any daily newspaper printed a color photo of a far-distant news event in the same issue in which the event figured as spot news.

It was the first time Associated Press wire-photo facilities were utilized by any daily newspaper to present a spot news photo in color.

It was also the first time any daily newspaper "replated" color between editions of the same issue. For early editions the Tribune made engravings of a color photo transmitted from Washington to Chicago by wire-photo. Meanwhile, the Tribune plane had left Washington with another set of color negatives. From the negatives sent by plane, new engravings were made and substituted for the earlier engravings of the picture sent by wire.

On June 9, wire-photo facilities again were used to transmit color negatives of a page-wide photo of the royal visit to Mount Vernon which appeared in the Tribune of June 10.







# TRENDS IN NEWSPAPER MAKEUP

By JOHN E. ALLEN

● NOT MANY YEARS AGO there were fewer than half a dozen modernly planned, physically attractive, and easily read daily newspapers published in North America.

During recent years many of our newspapers have undergone decided changes for the better. They have abandoned the use of outmoded and clashing display faces, simplified their headlines, adopted larger and more legible body faces, and discarded needless dashes with other typographic superfluities in favor of a more generous employment of white space.

More than that, several papers have abandoned archaic styles and forms of news and editorial writing, no longer adequate, in favor of modern and much more appropriate forms. A growing number of papers, in addition to using simplified heads and larger body types, are presenting front-page summations of the leading news and the feature stories throughout the papers. They are also departmentalizing much of the news.

For years, of course, we have had sports pages, society pages, financial, and other pages; but more and more papers are now departmentalizing local news, crime news, labor news, news of industry, news of agriculture, and so on. This is done, of course, without keeping from the front pages outstandingly important news in any category.

Since 1935, Herbert Brucker, of the school of journalism at Columbia University, has been advocating a new news-writing technique. Mr. Brucker holds, and with truth, that the newspaper reader is no longer content with merely spot news. He wants his paper to give him not only spot news but the background of that news. He also wants interpretations of it—all in easily findable and readable form.

So many newspapers are now using simplified modern heads, and so many others are in the course of changing

## SPOTLIGHT

Paul Derrig



Paul Derrig, General Secretary of the Y. M. C. A. at the University of Virginia, will meet students in the Y. M. C. A. building, 1000 North Main Street, on Sunday night, his Annual Report, outlining the history of the Y. M. C. A. in the year, and the names of the officers and staff members.

## HEADLINES

**Administrative Council Passes Senior Leave Measure** . . .  
Today, at 12:00 noon, the Administrative Council of the University of Virginia passed the Senior Leave Measure, approved previously by the Senate. The measure, which will take effect on September 1, 1935, provides for the granting of leave to senior faculty members who are unable to continue their service due to illness or other reasons. The measure was passed by a vote of 10 to 2.

**Wash. Column Green Team** . . .  
The "Green Team" of the Washington Post, which has been active in the Washington news scene, is expected to be a major factor in the coming year. The team, which is headed by Walter Winchell, is expected to be a major factor in the coming year.

**College Graduate Women Students' Union** . . .  
The College Graduate Women Students' Union, which has been active in the Washington news scene, is expected to be a major factor in the coming year. The union, which is headed by Mrs. J. W. Smith, is expected to be a major factor in the coming year.

**Newspaper Features Test This Year** . . .  
A new measure and interesting paper has been planned this year for the students of the University of Virginia. The measure, which is headed by the students, is expected to be a major factor in the coming year.

**Professor Hastings H. Hollingsworth** . . .  
Professor Hastings H. Hollingsworth, who has been active in the Washington news scene, is expected to be a major factor in the coming year. The professor, who is headed by the students, is expected to be a major factor in the coming year.

**Thomas Watson Should Improve** . . .  
Thomas Watson, who has been active in the Washington news scene, is expected to be a major factor in the coming year. The professor, who is headed by the students, is expected to be a major factor in the coming year.

## EDITORIAL

**Pros And Cons Of Senior Leave Measure** . . .  
The measure which the Administrative Council of the University of Virginia passed today, at 12:00 noon, is a measure which will take effect on September 1, 1935. The measure, which provides for the granting of leave to senior faculty members who are unable to continue their service due to illness or other reasons, is a measure which is expected to be a major factor in the coming year.

The measure, which is headed by the students, is expected to be a major factor in the coming year. The union, which is headed by Mrs. J. W. Smith, is expected to be a major factor in the coming year.

The professor, who is headed by the students, is expected to be a major factor in the coming year. The professor, who is headed by the students, is expected to be a major factor in the coming year.

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## BMA Gets Billions In ZWA Grant For Tunnel

Exactly many of you have heard of the B. M. A. tunnel, which is expected to be a major factor in the coming year. The tunnel, which is headed by the students, is expected to be a major factor in the coming year.

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## Bodein To Speak At YMCA Venues

Dr. Vernon P. Bodein, pastor of the Washington Baptist Church, will speak at the YMCA venues, which are expected to be a major factor in the coming year. The professor, who is headed by the students, is expected to be a major factor in the coming year.

## THE VIRGINIA TECH

"AMERICA'S MOST MODERN COLLEGIATE NEWSPAPER"

VOL. XXXV, NO. 2 VIRGINIA POLYTECHNIC INSTITUTE, BLACKSBURG, VIRGINIA, SEPTEMBER 21, 1935 Price Ten Cents

### Administration To Support Proposed Senior Leave Plan

Follows Senior Class Approval

By HENRY L. DOWNS

Announcement was made today by Colonel J. B. Collins, commander of the senior class, that the senior leave measure, approved previously by the Administrative Council, had been approved by the senior class. The measure, which will take effect on September 1, 1935, provides for the granting of leave to senior faculty members who are unable to continue their service due to illness or other reasons.

### Enrollment Totals Soar As Final Checkup Is Made

By C. A. McLaughlin

The above picture shows a line of students going through the entrance of the University of Virginia. The students, who are headed by the students, are expected to be a major factor in the coming year.

### Co-Eds Give Test Organize WSU

By C. A. McLaughlin

The above picture shows a line of students going through the entrance of the University of Virginia. The students, who are headed by the students, are expected to be a major factor in the coming year.

### Professor Burkhardt's Illness Prevents His Meeting Classes

By C. A. McLaughlin

The above picture shows a line of students going through the entrance of the University of Virginia. The students, who are headed by the students, are expected to be a major factor in the coming year.

### Captain Longwell Gives Corps Message

By W. F. R. Longwell

The above picture shows a line of students going through the entrance of the University of Virginia. The students, who are headed by the students, are expected to be a major factor in the coming year.

### Board Of Governors, Senators And Jurors Elected By Civilians

Prof. Hyalup Explains Regulations To 510 Civilians And 69 Co-Eds

By C. A. McLaughlin

The above picture shows a line of students going through the entrance of the University of Virginia. The students, who are headed by the students, are expected to be a major factor in the coming year.

### Rifle Club To Discuss Murals

By C. A. McLaughlin

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### NAMES in the NEWS

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in his senior year at Virginia Polytechnic Institute, of Blacksburg, Virginia.

Note that nearly all of the heads are simplified flush-left heads, that all of them are in members of a single type family—Bodoni—and that most of the heads are in capitals and lower-case.

★ ★

### Two Front Covers!

**S**HATTERING A PRECEDENT apparently as many centuries old as book-binding itself, Montgomery Ward's new fall and winter 1939-1940 catalog has two front covers . . . and no back! That looks like something really new!

At any rate, here is how Ward's does it: The book is divided into two general sections—THINGS TO WEAR and THINGS FOR THE HOME, SHOP, AND FARM. After thumbing through one or the other, or picking out wanted items, if he's bent on buying, the reader merely turns the book over.—Lo and behold—there is another cover! Both covers are equally attractive; there is no favoritism shown in the "curtain raisers." Both are definitely front covers.

Sandwiched in between the two catalogs-in-one are the general index, order-blank pages, and the informational pages.

Several practical advantages are claimed for this revolutionary method of binding the catalog. For one thing, it is claimed that the record weight of this edition, five pounds, is more conveniently handled because the bulk of it is always on the right-hand side.

That was not the chief reason for the change, however, according to an executive of the company. "The major purpose of the new idea," he explains, "is to give the customer the benefit of a more 'practical catalog arrangement and better presentation of the merchandise. Like certain large stores with two front entrances on parallel thoroughfares, the new catalog has two sets of 'show windows' and two sets of 'front counters.' This gives opportunity for better display of more major lines. Everything is up front, nothing in back of the store.

More than 70 per cent of the new catalog is in color and rotogravure. This has been made possible by the new "flash dry" printing process which greatly speeds up color printing. Color photography and reproductions of actual photographs are used almost exclusively in picturing the merchandise in Ward's new catalog.

## WHAT THE BOOKMAKER IS DOING

By Milton B. Glick

**F**OR SOME YEARS PAST, many of us who are concerned with the planning of books have basked in the assurance by typographic commentators that we are witnessing a renaissance in the art of printing. The plausibility of this pleasant assurance has been enhanced as we looked back upon the past forty or fifty years of bookmaking history.

There was William Morris and the growth of private presses. There has been the technical improvement of machine printing, typesetting, papermaking, and binding as greater and greater demands upon the machine operators were made. The brightest stars in our typographic firmament, Bruce Rogers, D. B. Updike, Robert and Edwin Grabhorn, Joseph Blumenthal, and a number of others, have required of the machine work comparable to the great hand-produced books of the past. Our advances have been forced from the machines by constant comparison with the work of earlier periods. It has not been surprising, therefore, that this technical striving to match the work of the past has resulted in adherence to old typographic patterns of design.

A glance at the most distinguished selections made by the Fifty Books juries will show that period typography generally has been our best typography. Now, when Mr. Rogers and others have created in the first third of the twentieth century, masterpieces in all of the great typographic styles of the past, shall we be content to go on imitating these monuments of bookmaking? I feel that to some extent our admiration for those superb accomplishments has created a wall which obstructs our progress toward a characteristic twentieth century style of our own.

This question has been put to us by the most recent of Fifty Books juries. Monroe Wheeler, speaking for the jury, has said, "A majority of the well made books of today seem to me to reflect the spirit of our times less faithfully than a good deal of contemporary art, architecture, and industrial design has maintained the mood and tempo of the times."

I believe it is up to us to do something about this. What we are to do will not, I hope, be "modernistic." There already has been too great a tendency to consider that prerequisite

of modern typography is the use of sans-serif or square-serif types. That is not at all what I mean. We must still work within the fundamental limits set up for all printing for all times: legibility, convenience, usefulness. But perhaps these limits are much broader than we have been accustomed to imagine. Hence the need for a more open mind and a more experimental attitude toward today's processes, today's materials, and even of today's reading habits.

If I have made clear the kind of modernism I have in mind, I am sure you have already been thinking of the books of W. A. Dwiggins. He seldom uses a sans-serif type, and never, as far as I know, has he spread one line and compressed the next in a tortured effort to fill out arbitrary blocks of space as do many exponents of the modernistic.

His boldly designed binding cases have shown us that library shelves can be made a lively part of an interior decorating scheme. Dwiggins has devised a thoroughly fresh and original use of hand lettering which is based upon a firm foundation of traditional calligraphy.

Not every book lends itself to a treatment that is modern even in the broadest sense. But when we look at Dwiggins' *Dr. Jekyll and Mr. Hyde*—thoroughly modern-looking although set in Caslon—do we not desire to re-evaluate the habits of the classical traditions?

Of course, much of what Dwiggins has done has been in an intensely personal style. We will not get far by trying to imitate his books. But he has given us *Electra*, a good body type with classical ancestors, yet with an unmistakably present-day quality. It is my hope that he will soon give us the right display face to go with *Electra*. However, we need not wait for that in order to share with him the broader horizons in the use of space, materials, and processes.

All of this commentary adds up to little unless it sets the stage for some thinking along new lines as we do next week's and next month's jobs. It should remind us that while the writers, composers, painters, scientists, and architects of our generation have been creating new horizons for themselves, we have been dressing our

twentieth century books as if we were living in the days of the spinning wheel. Occasionally, we create a fresh impression in a book by a new approach to an illustration problem, and more often in modern bindings than in any other department of bookmaking, have we distinguished ourselves in terms of modern design.

In the trade book field, one designer has shown a more consistently fresh approach than any of the rest of us. It was therefore a well earned honor for Ernst Reichl to have the largest number of selections in the last Fifty Books of the Year.

In advocating more originality in book design I am aware of the significant statement to the contrary recently voiced by Stanley Morison. Mr. Morison said he did not agree with those who had the deliberate intention of producing a book in accordance with modern times. I believe, however, that looking back over the history of printing we can see more than one period when the work of the past seemed entirely adequate. Had the craftsmen of the day then been content, our heritage would be far less rich than it is. The incunabula of Mainz, Nuremburg, and Subiaco were handsome and adequate imitations of their manuscript predecessors. Yet when printing encountered the Renaissance, did not Jensen and Aldus produce books more in accordance with their times? Did not Simon de Colines and Geoffroy Tory take upon themselves a "modern" role when they stepped beyond the manuscript tradition? And in eighteenth century England, Baskerville was among the very few who did not find the Dutch and Caslon tradition adequate for all needs.

Finally, I should like to emphasize again my admiration and respect for the great printers of today who are working according to traditional patterns. But I do not believe it will be fruitful for all of us to continue to cultivate these same channels. Every period of our craft needs its innovators. Therefore, I challenge myself and you to experiment with new techniques, new materials, and, above all, with new but entirely simple and logical arrangements of type areas and white space.

(EDITOR'S NOTE: The foregoing article is from an informal talk entitled, "A 20th Century in Book Design?" given by Mr. Glick, of the Viking Press, New York City, at a meeting of the Society of Printers, April 21.)

# PHOTOGRAVURE, LETTERPRESS OR LITHO?

Edward Schultz, purchasing agent of America's giant food organization, Standard Brands, Incorporated, recently addressed the Young Lithographers' Association of America on the relative value of lithography and other processes. He listed their various merits as follows:

## PHOTOGRAVURE

We can classify gravure with special processes as silk screen, photo-gelatin, etc., as they all apply to certain specialty jobs, very short runs or very long runs where economy is necessary or advisable. This process at best suffers in quality comparison with letterpress

or lithography due to poor type, register, and page margins, but fits where economy is necessary and also has certain advantages on some pictorial effects. So we come to the two main processes and how they compare on various points of appearance and economy.

## LETTERPRESS

1. More faithful reproduction of our illustrations, namely, gelatin dishes and bakery products.
2. Cleaner, sharper details when the art work calls for them.
3. More brilliancy, brighter tones.
4. Can do more in four-color process than lithography.
5. Sharper type faces on the average owing to direct type or electrotpe impression instead of photographed type.

6. Consistent color tone throughout the run, both sides of sheet will be the same tone value as compared with lots of lithography where lack of press and ink control gives light and dark shades through the run and on both sides of sheet.
7. Privilege to re-run from one or more electrotypes small quantities on small presses at low cost.
8. Bound book of fifty or a hundred pages where we print from type and can make typographical changes on each run.

## LITHOGRAPHY

1. Naturally on large media as posters or large displays, we all choose lithography, as letterpress is handicapped on plate sizes. Here, incidentally, we turn to our top-notch lithographers.
2. Full color soft reproduction is obtained where art work calls for it. Again, we use top-notch lithographers.
3. Black and white soft reproduction obtained from pencil or crayon drawings.
4. Choice of paper stock—lithographer can use any grade of paper and get satisfactory results, whereas letterpress is limited to coated papers and possibly super and English finish for good halftones, and this means by lithography we can use (as we often do) rough finish or antique paper, which looks better and feels like more value than a coated sheet.
5. Mailing Piece—If we have a brochure, a four- or eight-page 9 by 12 folder, which is to be mailed out in an envelope, we always choose an offset sheet, either plain or fancy finish, as it gives better impression and carries better through the mail. Even though we have the phrase, "Please Do Not Fold" on our mailing envelope, we know the mailman will fold it, and, if it is a coated sheet, the cracked paper mars the illustrations and ruins the intended impression, whereas, a fold in either or both directions of our offset

paper is hardly noticeable. Therefore, we're practically pushed into lithography as letterpress cannot do a satisfactory job on offset papers. We approximate the letterpress results by using two-color black and gray halftones offset.

6. Question of Postage—Again the advantage of lithography in a mailing piece is evident. We can use a 70-pound offset color sheet instead of an 80-pound coated and greater bulk, and still save on paper costs and on postage, which is a big item when the twelve-cent bulk mailing rate is considered—averaging saving in postage of \$1.00 or \$2.00 per thousand.
7. Delivery—Very often a rush delivery date can only be met by lithography; faster plates and no need of electrotyping delay—then we have the advantage of being able to back up the sheet immediately and also fold sooner.
8. Its adaptability to so many different types of jobs which letterpress and gravure cannot touch.
9. Eliminating Composition—Today, we take full advantage of typewriter or varityper for reading matter, eliminating type setting costs. Again, we reproduce the lithography direct from printed file copy on which type or electrotypes are not on hand. Obviously, this also eliminates need of filing many seldom-used cuts and plates.



# NEWSPAPERS VIA AIR WAVES!

**T**IME'S FINGER moves forward, as the poet said, and writes a new story every day about printing developments . . . new discoveries . . . trends. But it hasn't stood still, either, in writing the history of new ways to further the swift transmission of news.

Today—an actual moving finger of light is scanning a specially printed miniature newspaper and, through the twin miracles of the electric eye and radio, is recording its impressions of white, grays, and black on a facsimile newspaper coming from a receiving set miles away. Yesterday an experiment . . . now a fascinating exhibit in New York, St. Louis, and San Francisco, and an object of awe in a few private homes. Tomorrow? An accepted way of getting the news quickly, in permanent form, for thousands of homes, in all likelihood.

Since December 7, 1938, the world's first radio newspaper, the Radio Edition of the St. Louis *Post-Dispatch*, has been broadcast every day in St. Louis from 2 to 5:15 P. M. In addition to its publication in St. Louis on the newspaper's ultra short wave station, W9XZY, the Radio Edition is broadcast at the New York and San Francisco World's Fairs in coöperation with the Radio Corporation of America. At the New York Fair, the Radio Edition is received on a facsimile

receiver in the Missouri Building and on other receivers on the fair grounds.

The Radio Edition of the *Post-Dispatch* is a carefully prepared miniature newspaper, edited by trained news men in the paper's building in St. Louis. For St. Louis on the six weekdays, it consists of two news pages, a sports page, a page cartoon by Fitzpatrick—staff cartoonist—a page of editorials, three picture pages, and a final page of late news and market and weather reports. On Sundays, it consists of pictures.

The New York and San Francisco Fair editions are similarly made up, but the news in them is twenty-four hours late as it is air-mailed from St. Louis. Also, the Radio Edition for San Francisco omits Monday publication. Each of the pages of the Radio Edition measures 8½ by 11 inches, and each news page has four columns of type.

The radio edition pages are made up in the *Post-Dispatch*'s composing room as are pages of the newspaper itself, and proofs are pulled on calendered paper. In turn, these page proofs, the cartoon page, and pasted picture pages are placed one at a time



Facsimile copy rolls from cabinet in continuous strip

on a cylinder of the scanning mechanism connected to the ultra short wave transmitter, W9XZY. As the cylinder revolves at a rate of 75 r.p.m., a small beam of light is carried back and forth across the page. The light is reflected into a photoelectric cell which moves with it. The amount of reflected light, of course, varies according to the degree of whiteness and blackness of the pages of type and the depth of the shading of the pictures. In the photoelectric cell, varying electrical impulses are set up. These are amplified and eventually broadcast by the transmitter.

The impulses broadcast are picked up by the aerial of a facsimile set in a home.

The receiver, a closed cabinet with no dials to be operated or gadgets to be adjusted by the set owner, contains continuously feeding rolls of white paper and carbon paper which pass over a revolving cylinder on which is a helical ridge. As the cylinder revolves, a point on this helical ridge travels across the set in a horizontal direction beneath the white paper over which the carbon paper runs. A printing bar, operated by the power tubes in the set with a pressure varying according to the fluctuating intensity of the radiations from the transmitter, strikes down on the carbon paper. Thus the black and white of printed page or picture, scanned by the photoelectric cell in the scanner, is duplicated on the paper passing over the cylinder in the receiving set.

Printed only on one side, the copy may be cut and folded or may be allowed to issue from the receiver in a



Radio edition, printed in the regular way, on calendered stock, is placed on cylinder of the scanning machine in transmitting room of Station W9XZY, St. Louis *Post-Dispatch* Building

wide ribbon. A time clock automatically turns the set on when the radio edition goes on the air and turns it off when the broadcasting for the day is concluded. It requires fifteen minutes to receive a page.

Paper cost is about four cents a day for the nine-page edition, and the receiver consumes about a cent's worth of electricity daily. Transmitters and receivers capable of handling a page in three or four minutes can be made, but would be expensive. The fact that transmitter and receiving set must have the same power source, because of the variation in electric current pulsations, is another difficulty.

Editing the radio newspaper is a real assignment in boiling down the stories to their bare, essential facts. Advertisements, so far, are out. But for how long? Only until circulation—or whatever they'll call it—for this new medium, the offspring of printing and radio, is built up, we surmise.

Permitting ourselves a little speculating, a glimpse into the problematical developments of the future, will the time come when straight advertising will come from this machine, perhaps by throwing a special switch, or

## TYPE DIRECTORS SEE FUTURE'S PROMISES

*In the discussion, type directors and counsellors of representative organizations review what their companies have been doing in type design during the past few years and on the basis of their knowledge and observation, predict what they think is on the way in the parade of type*

IT IS MUCH EASIER to get the typographic experts to review the past few years in their field than to induce them to forecast the future of type design trends. This THE INLAND PRINTER soon discovered after asking a jury of them to give their opinions.

Prophecy is hazardous. Most of us shy from it. So, conceding that the prophet sticks his neck out, as they say, and applauding his courage in doing it, here are some of the things Howard N. King, typographic coun-

Mr. King does, however, expect many new and unusual faces for occasional or heading use. But, in line with the seeming current nostalgia for the past, he feels the new may be the old in the sense that they will be "modifications which will improve these old types." Didot faces are mentioned by him as a possibility for future inspiration for type designers.

Reviewing some of the type faces introduced by Intertype within the past few years, Mr. King lists Vogue,

### SIX-MAN JURY FORMS THE PANEL ON TYPE TRENDS



Left to right: Eric Leipprand, president of Bauer Type Foundry; Howard N. King, Intertype Corporation; Sol. Hess, associate art director, Lanston Monotype Machine Company; C. H. Griffith, vice-president, Mergenthaler Linotype Company; Douglas C. McMurtie, director advertising and typography, Ludlow Typograph Company; Gerry Powell, typographic director, American Type Founders

from another machine, in offices and homes? Could happen—if the advertisements were made entertaining enough, carried news of large economies, or, through some other basic appeal, forced attention!

★ ★

#### **We're Sorry!**

It is C. H. Armstrong and son whose candid camera pictures are on page 31, top, of our August issue—not C. H. McCormick. Apologies are in order!

sellor to the Intertype Corporation, of Brooklyn, New York, has to say about the trends:

"Since advertising needs continual change to be happy, and since all signs point to an increase in the use of direct mail, as well as advertising in newspapers and magazines, in the next few years, printers can expect to see many new type faces. I don't expect to see an unusual body letter for advertising purposes developed in the next five years—certainly not one the equal of Futura or Cairo."

Egmont, Weiss, Baskerville, Beton, Rex, Regal, with Futura, rounding out Intertype's family of faces in order to give the printer and publisher a type face for every printing purpose, a book, newspaper, or periodical.

During the past year, the Intertype Corporation has been cutting groups of new faces for the medium-sized commercial plant and the specialty printer, in the program of type for every purpose. Park Avenue, Parisian, Greeting, Monotone, and Adonis are a few of these special types.

Douglas C. McMurtrie, typographic director of the Ludlow company, of Chicago, predicts the future trends on the basis of known fact and past experience, prefacing his forecast with the statement of these fundamentals: Type faces to be successful must meet two primary requirements; they must be legible, and they must be attractive.

"Up until about ten years ago," Mr. McMurtrie reminds us, "roman types went through certain cycles of style. Innumerable variations of drawing the basic letter forms were tried, used for a while, and then were discarded. The perennials which again and again returned to favor were a few designs by the masters of punch cutting."

He groups the survivors into two classes according to their claims to immortality; first, Caslon, several revivals of the types of Nicolas Jenson, Garamond, and several versions of Bodoni; second, Baskerville, Bembo, Didot, and a few others.

"Then came the tidal wave of interest in the modern theory of design," Mr. McMurtrie says, "which called for the reduction of all units to their simplest possible forms. But an even more imperative modern precept was that form should follow function."

Typography's answer was the production of new sans-serif type faces, "monotone, without contrast in weight of strokes . . . the drawing geometric rather than free," as Mr. McMurtrie characterizes them.

"These faces in display sizes proved highly successful, fitting perfectly into the severe geometric layouts which also came into vogue," he concedes, "but when they were subjected to the functional test of legibility in text for continuous reading they proved wanting. Hence, they failed in one respect to measure up to one fundamental of modern design," Mr. McMurtrie points out.

Tracing the later developments from the addition of flat serifs, the arrival of some well drawn "gothics," and more functionally successful modern letter forms, this type authority says, "Realizing that the inexorable requirement of legibility in type will again assert itself, we asked ourselves: Why not a modern type face, simple in drawing, normal in letter widths, but embodying that feature of contrast in weight of strokes which has always contributed so largely to legibility of the printed page?"

The answer offered by the Ludlow company to meet these specifications

**Bernhard Modern Roman and Italic**—these  
American Type Founders

**Many Printers are now Installing this System**

Ludlow Typograph Company (Karnak Bold Condensed)

**Counsel is Paid Out of the Commissions Earned**

Bauer Type Foundry

**This is Linotype Poster Bodoni Compressed. Why do the**

Mergenthaler Linotype Company

**This is Monotype 20th Century Medium**

Lanston Monotype Machine Company

**Better Printing Is Produced with More Pro 23**

Intertype Corporation (Bernhard Fashion)

**Onyx**—the compressed blackface with a legible lower

American Type Founders

**Flower Show will Open in the Auditorium**

Ludlow Typograph Company (Coronet)

**Counsel Retained on a Percentage Over Cost Basis**

Bauer Type Founders (Corvinus Bold Condensed)

**Tall and Stately like Celebrated Campanile**

Ludlow Typograph Company (Campanile)

**Bernhard Modern Bold and Bold Italic**

American Type Founders

**Kaufmann Bold and Script**—most popular of a

American Type Founders

**An Addition to the Popular Ludlow Karnak Series**

Ludlow Typograph Company (Obelisk)

**Addition to the List of Ludlow Typefaces**

Ludlow Typograph Company (Radiant Medium)

**HUXLEY VERTICAL**—AN ORIGINAL CONCEPTION IN KEEPING WITH

American Type Founders

**Lino Poster Bodoni with italic**

Mergenthaler Linotype Company

**This is Monotype 20th Century Bold**

Lanston Monotype Machine Company

**Better Printing Is Produced with More Pro 23**

Intertype Corporation (Weiss Roman)

**Bernhard Gothic Medium Condensed**—ninth in a dis

American Type Founders



is Radiant. Radiant Medium, of this family, is described as having simplicity and legibility plus modern style while "in the other members of the family . . . the style element becomes more dominant as the demand for legibility decreases."

Mr. McMurtrie states as his belief "that type faces of simple design with strokes of contrasting weight, will represent the next important development in typography. Tall and slender type faces with skyscraper characteristics will continue in popularity," he believes, but adding, "we have not yet seen the end in production of well drawn scripts to provide a touch of informality and grace."

Book faces . . . their present and their probable future . . . naturally come in for a major share of attention from Sol. Hess, associate art director of the Lanston monotype company, of Philadelphia. He makes this interesting point, "It is . . . significant that one of the first of the roman types—Jenson—has remained to this day (and probably always will be) the basic pattern from which a majority of our most handsome and usable letters are modeled."

"Soundly designed and cut letters survive the passage of time . . . a test of worthiness of any type face," Mr. Hess declares, citing Garamond, Caslon, Baskerville, and Bodoni, "every one of them cut well over a century ago, still apparently harmonizing with our modes and style today."

After reviewing the contributions his company has made to type designing during the past year with such families as Monotype 20th Century and Stymie (which two alone, he informs us, meant cutting 30,000 punches), revisions of Jenson and Granjon, Monotype Village No. 2—a redesign of the first Village by Frederic W. Goudy—Post, and other types in the traditional manner, Mr. Hess mentions Flash as an example of a new monotype face in line with present trends. Flash is a freely drawn letter which has been cut only a short time.

"Frankly, I am of the opinion that the 'Type Face of Tomorrow' will not be very dissimilar to the type of today," says Mr. Hess. "Our basic type forms are more or less fixed . . . people have learned their general shape and proportions, and any radical change would, no doubt, prove unwelcome to readers."

C. H. Griffith, vice-president in charge of typographic development of

## **The Layout and the Advertising Man**

Bauer Type Foundry (Corvinus Bold)

## **Better Printing Is Produced with More 23**

Intertype Corporation (Futura Demibold Oblique)

## ***This is Monotype Flash Series***

Lanston Monotype Machine Company

## **Lydian and Lydian Italic—leaders in their**

American Type Founders

## **Linotype Metroblack No. 2 with italic**

Mergenthaler Linotype Company

## **Attracts Attention of your Readers**

Ludlow Typograph Company (Radiant Heavy)

## **This is Monotype Onyx Series**

Lanston Monotype Machine Company

## ***Ludlow Design with an Informal Effect***

Ludlow Typograph Company (Hauser Script)

## **Lydian Bold and Bold Italic—vigorous ad**

American Type Founders

## **This is Linotype Memphis Medium Condensed. Why**

Mergenthaler Linotype Company

## **Better Printing Is Produced with Mor 23**

Intertype Corporation (Egmont Bold)

## ***The Color and Direct Mail Advertising***

Bauer Type Founders (Legend)

## **Monotype 20th Century Extrabold**

Lanston Monotype Machine Company

## **BALLOON LIGHT, BOLD AND EXTRABOLD—AN**

American Type Founders

## ***Better Printing Is Produced with More Pro 23***

Intertype Corporation (Park Avenue)

## **Ideal Ludlow Design for Advertising Display Heads**

Ludlow Typograph Company (Radiant Heavy Condensed)

## **Linotype Memphis Medium with italic**

Mergenthaler Linotype Company

## **How is Counsel Regarded by Other People**

Bauer Type Founders (Bauer Text)

## **A NEW PUBLICATION**

Ludlow Typograph Company (Umbra)

the Mergenthaler Linotype Company, in his summary of type design accomplishments in the immediate past, calls attention to the seeming paradox that in the period of business stress from late 1929 to the present time, a greater number of type faces were placed on the market than in all the first twenty-eight years of the century. He pays tribute to the work of W. A. Dwiggins, designer of the sans-serif Metro family, the Electra series, and the recently released new Caledonia series, who is now at work on additional designs to appear in 1940.

Rudolph Ruzicka's new type—Fairfield—which will probably be available in a few months, he describes as pleasantly decorative but fundamentally classic in its letter forms."

The invitation to look into the future and tell what he sees intrigues him, Mr. Griffith admits. Though he makes no specific forecasts as to type faces, an intensive development of the work of American designers is expected by his company, he says.

"A good place to look for tomorrow's trend is in the type face that is popular today," is the succinct observation of Gerry Powell, typographic director of the American Type Founders Sales Corporation, of Elizabeth, New Jersey.

"Take Kaufman Bold and Script, Onyx, and Lydian, for example," he says. "One would scarcely suspect such different faces of typifying the same general trend. Yet each has gained outstanding popularity because each, in its own fashion, afforded relief from the severity of the currently prevalent sans-serifs and gothics."

How each of these faces accomplished these purposes in its own way is described by Mr. Powell and in this he finds a clue to the type faces of tomorrow's publications.

"Tendency away from gothic severity, to be sure . . . likewise simplicity in letter form, not only because printing buyers are still under the influence of modernism, but also because modern reproduction methods—offset, engraving, stereotyping, electrotyping—do a better job on simple, substantial designs than they do on frills, furbelows, and fancy serifs," tersely predicts Mr. Powell.

As the final contributor to this summary of type directors' and authorities' opinions on what the immediate future may hold and what type design has accomplished during the past few years—Eric Leipprand, the president

This is Linotype Electra, designed by W. A. Dwiggins, with its *italic* and **bold**. Why do the pace-makers in the art of printing Mergenthaler Linotype Company

This is Monotype Baskerville, a *faithful facsimile* of a design cut by the Englishman John Baskerville about the year 1760 Lanston Monotype Machine Company

**Better printing produced with more profit through the use of economical equipment and modern meth 12345**  
Intertype Corporation (Cairo)

This is Monotype Process Series, a face specially *designed for purposes of gravure reproduction* and made at the solicitation of the Crowell Publishing Company. The basic design is Monotype Goudy Light Number 38E series. Thin lines and serifs were thickened, all pointed parts of letters were rounded counters of certain characters were opened up and the general fitting increased. A monotone weight was preserved throughout the entire design Lanston Monotype Machine Company

Better printing is produced with more profit through the use of economical equipment and modern methods of composing room 12345 Intertype Corporation (Weiss)

This is Linotype Caledonia, designed by W. A. Dwiggins, with its *italic*. Why do the pace-makers in the art of printing Mergenthaler Linotype Company

**Better printing is produced with more profit through the use of economical equipment and modern me 12345**  
Intertype Corporation (Rex)

This is Monotype Janson, an excellent letter *for 20th century printing*, based on a Dutch type cut by Anton Janson in 1670 Lanston Monotype Machine Company

This is Linotype Fairfield, designed by Rudolph Ruzicka, with its *italic*. Why do the pace-makers in the art of printing rave over Mergenthaler Linotype Company

Better printing is produced with more profit through the use of economical equipment and modern methods of com 12345 Intertype Corporation (Goudy Old Style)

This is Monotype Bell, a design of 18th century English ancestry. *The face rates high in readability*. Classified as transit Lanston Monotype Machine Company

This is Linotype Granjon with its *italic* and **bold**. Why do the pace-makers in the art of printing rave over a specific face of type? What Mergenthaler Linotype Company

**Better printing is produced with more profit through the use of economical equipment and modern methods of co 12345**  
Intertype Corporation (Baskerville)

This is Linotype Baskerville with its *italic* and **bold**. Why do the pace-makers in the art of printing rave over a specific face Mergenthaler Linotype Company

This is Monotype Fournier Series, a face combining both modern and old style characteristics. The original charac Lanston Monotype Machine Company

of Bauer Type Foundry, New York City, says, "In former years . . . all one expected of a type face was legibility. The evolution that began with the post-war period has penetrated every phase of our lives and is particularly noticeable in architecture, interior decorating, industrial design, and fashion in general."

"Reading used to be a leisurely pursuit. But in our age a message must be presented in such a way that it can be grasped at a glance. It must arouse the imaginative faculty of the reader and symbolize, to a certain extent, the main characteristic of the subject dealt with. The type face can be made to suggest varying moods and distinctive qualities such as strength, subtleness, up-to-dateness, conservatism, *et cetera*. It would be confusing, for example, to advertise a heavy piece of machinery in a dainty and feminine type."

"The development of advertising typography has forced typefounders to adapt themselves to changed conditions. Where formerly a limited number of type faces would answer many purposes, today a far greater demand for ingenuity and inventiveness is made upon the foundries."

"The close relationship between other fields of art and typography can easily be traced. The straight lines, bared of every decorative element so obvious in the twenties, were unmistakably expressed by the appearance of Futura, followed in logical sequence by Beton. Later, a certain lessening of the rigid lines . . . found truest interpretation in Corvinus."

As examples of answers to the demand for script informality, Mr. Leipprand mentions Trafton Script, Gillies Gothic, and Legend, while the urge for greater freedom and a more personal note brought Cartoon.

"We venture to say that art and typography will take on a still more friendly and beautiful expression without sacrificing the main characteristic; namely, fundamental simplicity," this type authority says, offering as evidence the Bauer company's newest design—Symphony—which is scheduled to appear shortly.

There are stimulatingly different viewpoints expressed in this discussion on what has been accomplished in type design during the past few years and what the trend is likely to be during the next few years. The consensus seems to be that the present swing back to the traditional will continue in the immediate future.

## TRANSPARENCY METHOD EXPLAINED

**C**ORRECT PROCEDURE for pulling perfectly clear and opaque transparent impressions was for twenty years a guarded secret of Thormod Monsen and Son, Incorporated, Chicago. Seeing the results obtained by this method and samples of transparencies shown at the U. T. A. convention last October, Vandercook and Sons, Chicago, became interested in the procedure and eventually purchased the right to reveal it.

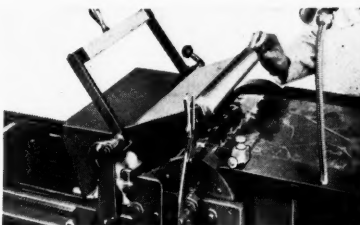


Figure 1. Laying roller on Cellophane preparatory to pulling the first impression

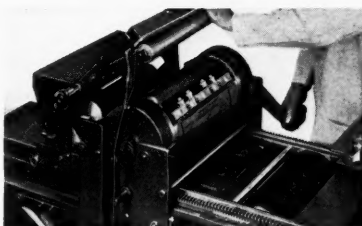


Figure 3. Roller lifted after first impression. Second revolution of impression cylinder misses the contact cylinder

Printers and typographers who feel the need for better transparencies and for precision proving equipment for pulling them will be interested in a circular issued by Vandercook. In it are revealed the factors governing production, so that any plant with composition facilities can use this short-cut method.

Printing type on a transparent sheet so that a contact print can be made on a negative in a printing frame supplants the old method of printing type in black ink on white paper and photographing it.

These preliminaries should be followed: anchor a rubber blanket securely from gripper bar to reel rod around the proving machine cylinder; use .005-inch underlay under type form so type will print on rubber blanket—for more pressure, add .001-inch tissue under type; carefully plane form, lock chase in press bed with bearers surrounding type or engrav-

ings. Then print three impressions on rubber blanket, keeping transfer ink spare; Cellophane sheet must be two inches wider than printing width, six inches longer than distance from gripper edge to end of printing.

Now feed the Cellophane to grippers, smooth out sheet on feedboard with a felt block, lay roller on sheet, press on it to impress sheet to rubber blanket which will transfer by offset the impression on rubber blanket to

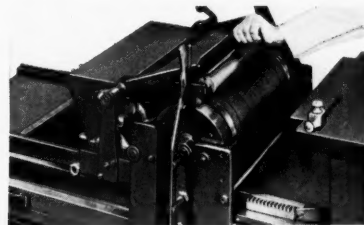


Figure 2. Pulling the impression. Pressure on handle smooths out the Cellophane

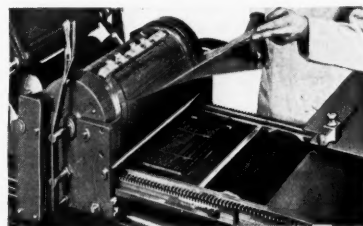


Figure 4. Cellophane is removed from cylinder, tail first, after second impression and then is dusted with lamp black

the reverse side while pulling the first impression from type. Lift roller.

Take another impression from type before removing Cellophane; peel off with left hand, starting at the tail-end, open grippers with right hand, grasp gripper edge, and lay in a dust box. Spread lamp black over printed area, rub with absorbent cotton, without pressure, in circular motion; turn over and dust reverse side. With transparency on clean tissue, clean each side; inspect with tissue laid over a viewing table, and retouch as necessary.

Superior transparent impressions—free of fuzz, slur, or halo around letters, will find a ready, growing market for use in photoengraving, offset lithography, and gravure as contact positives. Proving machines made for this purpose are Vandercook's Model Number 4T for maximum form locked in chase 11 by 16 inches, and Number 219T for maximum form locked in chase 15 by 22 inches.



## GOOD TEACHERS, GOOD PRINTERS

By Meyer Wagman

MR. KARCH's recent article, "Who Teaches Them Printing?" in the May issue of *THE INLAND PRINTER*, brings up a matter which has not received sufficient open discussion in the printing industry. More should be written and discussed with regard to schools, because their type and character of activity are bound to have an important influence upon the printing of the future.

Although I agree with some of Mr. Karch's contentions, there is one view I have never been able to accept—the view that the teacher is prior to the printer. Mr. Karch takes pains to emphasize the importance attached to teaching itself, but gives no such emphasis to what constitutes a printer. That may be the fundamental dividing line between his and my thinking.

One who is merely concerned with sticking type is a compositor—not a printer. One who works on a press may be a feeder or a pressman—not a printer. And I venture the opinion that a man who conducts a successful printing plant is not necessarily a printer. He may be a "good fellow" and an excellent business man—a fine, personable chap or, perhaps, he has the right kind of relatives—but still those elements do not comprise the design of what constitutes a good printer.

It seems to me that a printer is a craftsman who is ever striving to make an art of his trade—or craft. He has the ability, knowledge, and training to interpret and express problems that have to do with the printed word. He may be an idealist, but he is practical. He may be a compositor, pressman, or business man—or all three together, for that matter—but he is a printer only if he feels deeply the desire to express his true metaphysical being through printing. And such a man is capable of teaching printing.

However, there is this point to consider with reference to Mr. Karch's assumption that to teach printing one must acquire a professional training in teaching: It may help. It should not be held, however, that it is so important that without that training all instruction in the craft is next to impossible. To quote Mr. Karch:

On the other hand, printing teachers who are not practical men resent the implication that they do not "know their stuff." They

feel that inasmuch as one need not be a lawyer to teach commercial law to high-school students, why need one be a printing-teacher to teach printing?

Although Mr. Karch admits the comparison is not exactly parallel, the fact is, there is *no* parallel. When one speaks of commercial law, one refers to a small branch of the law. The non-lawyer teacher is not asked to teach *law*: he is asked to teach one phase of it—and often it is mighty inadequate and incomplete. Were that same teacher to be called upon to teach law, it would be required of him that he know the subject well and fully. No one would ask him to pass an academic test in teaching. This principle applies to medicine, too.

In printing it is more important to demonstrate the *how* than to explain

### ★ Can You Hold His Attention?



If a prospect's mind strays when you are making a personal sales presentation, you notice it and use some device to center his attention again on you and your story.

If your prospect's mind strays from your advertisement, the cause is lost, for a sales story when printed must stand on its own feet. When the presentation is made you may be many miles away. Your printed message must be perfectly planned. The reactions of the reader must be anticipated so that his attention is held until your story is across. Printing such as that takes more than type, paper, and presses. It calls for good judgment on the part of the printer. Upon this latter we have built our reputation as producers of effective printing.

Copy from colorful mailing piece issued by Padgett Printing Company, of Dallas, Texas

academically the wherefore. Surely such men as Bruce Rogers, Daniel Updike, Fred Goudy, and many less-known but good printers I can name, are capable of teaching printing in a school, and yet I doubt if any of them has a teacher's-training diploma. I am sure that even Mr. Karch will admit that a real printer has more to offer a group of learners than has any teacher who would appeal to a board of education for such a job on the basis of possessing a string of college degrees.

As time goes on I realize, more and more, that the real printer sees in printing his greatest means of expressing himself. Through it he dispatches his creative ability. He builds his entire subjective being with it, and it thus becomes the medium through which he portrays the world as he sees and feels it. He lives, moves, and has his being in printing. For him it is a synthesis of all things. It is the sculptor's clay with which he molds his world values, and, like the sculptor, his reacting impressions to environmental influences, personal thinking, reading, and investigations are all expressible through the vehicle which inspires him most—printing. All the teaching in the world can't bring that out. Such student reaction can come only through practical understanding of printer psychology rather than through academic training in the teaching elements and principles.

A good example of the chimerical conceptions which come from impractical thinking is offered by Mr. Karch himself when he writes: "The printing teacher should work in the industry in his time off to learn how practical printing actually is done." Here is evidence of contradiction. I ask: If one doesn't have to be a lawyer to teach commercial law, then why should a teacher have to put in his free time in actual shopwork to teach printing if what is most required is a teacher's degree? Subconsciously, Mr. Karch admits that when all the shooting has died down, the only thing that really counts is how much of a *printer* the teacher is and not how much of a teacher is the printer. By inference, he demonstrates that it isn't the teacher's degree that makes printers; it is the degree to which the teacher is a real, honest-to-goodness, genuine printer.

I believe that the chief trouble lies with those in whom are vested the power to select instructors. When I know that in my own city the requirements to become a teacher of printing

consist of having been a teacher of printing in a grammar school, taking a written test in English and an oral test in printing before the members of the board of education, I cannot help but wonder if the subject of printing, as now taught, isn't a waste of the taxpayer's money. As a confirmation of my belief, I submit the following signed letter:

I have been a foreman for a long term of years, well qualified to judge ability, due to the fact that my force is constantly changing through the uncertainty of business.

I had occasion to hire a young man. In my thirty-five years of experience, I believe he was the prize dope. He was slated to be the first man to be laid off when we slowed up. He went!

Imagine my surprise when he visited my plant a year later, and, believe it or not, was an instructor of printing in an institution. Certainly none of his pupils, with the poor start they will receive from his instructions, will ever be a Goudy, Gutenberg, or De Vinne.—J. F.

Such a situation leads to one fair suggestion. Teachers of printing ought to be selected in accordance with the standard of their accomplishments. Let those people show what they have *done*. Select teachers on the same basis that business establishments select executives, and when you have done that, the heightening of printing standards will come as the inevitable result.

Here is part of a "letter to the editor" which appeared on March 31, of the current year, in the Newark *Evening News*. It embodies the very point of view I have been speaking of—the academic point of view, frequently so remote from the practical.

Sometime ago, a printer I know—a man with ability, experience, and an unusual aptitude for the trade—sent letters to educators and business men, in search of employment for himself.

The school system replied with a standard form letter and a requirement list which automatically made this man ineligible. Ineligible for reasons that have absolutely nothing to do with one's ability as a printer.

Business recognized this man's ability and put him right to work. Today his possibilities and earnings are greater than anything the teaching field could possibly offer. However, I can't help feel that business, as well as the school system, is the loser. Business loses because here is a man who, due to his qualifications and temperament, would have been able to help contribute toward the demand made by business for better-grounded apprentices.—F. K.

I would like to read more opinions on this question, and I hope, Mr. Editor, your mailbag becomes considerably fattened with lively discussion on what I consider a principle topic in our chosen field.

## *A First-hand Impression of Daniel Moscow*

**President of The Wickersham Press, of New York City**



MY FATHER, it seems to me, represents something much more than merely the figure of a proprietor of a printing establishment. Although I have been associated with him but a short time—only since June, in fact—I have come to learn of the sterling quality of his relationship to the industry. Whatever tribute I can pay to him must, of necessity, be based on personal contact rather than on business

association, but it is apparent to me that my father is highly thought of in his own sphere of the graphic arts.

His building up of a concern from virtually nothing to a plant of sizable proportions was an achievement based largely on his belief in just reward for honest effort. The Wickersham Press is the product of his integrity and his faith in the future of the business he has worked so hard to build up.

Those who know "Dan" as a friend, as I do, appreciate him all the more. For he is a personality; his moods are flashing and potent. One minute anger-impatience—the next, solicitude. Those of us who work with him, as well as those who have been here at other times, have appreciated the constant drilling that is an accompaniment of association with him. The watchword is "alertness," with the corollary "carefulness." One thing that I shall always remember is the constant injunction: "Never say 'no'!" There's always *somebody else* ready to step in and do the work you say *you* can't do.

In tribute, and also with a prayer and hope, it is my earnest desire to attain the same admirable position that my father holds. It is to this end, I know, that he has all this time been training me. If I can come within sight of being half the man he is, I will be grateful. If I can be as humane and understanding and thoughtful, then I will have achieved the goal that he has set for me from the beginning—a goal I earnestly desire to reach.

**Written by Herbert Moscow**

# HEALTH HAZARD IN PRINT SHOPS

*Control of health factors is matter of proper education and supervision. Here is a condensed version of address recently presented at the Milwaukee-Racine Club of Printing House Craftsmen • By E. G. MEITER*

**T**HE HEALTH HAZARD in the printing trades can be controlled by proper education and supervision of all concerned. Sanitary working conditions in any given case, however, will only be provided when both employe and employer realize that there is just as much connection between poor sanitation and injury through disease, as there is between carelessness and injury through accidental cause.

In examining the hazards of the printing industry, we shall consider points under the following headings: lead-poison hazard; hazard of volatile solvents; the hazard of nitrogen peroxide; hazard of carbon monoxide; hazards associated with illumination; and hazard of bronzing.

The percentage of workers in the printing industry exposed to lead fumes and lead dusts has recently been reported as 29.8 per cent. However, I have been unable to locate accurate statistics reporting the prevalence of lead poisoning in this industry. This is due primarily to the fact that no extensive studies including medical examinations of the workers have been made of this industry, such as have recently been conducted in the industries having a silica-dust exposure. Accurate knowledge of the extent of a hazard can be obtained only through a simultaneous study of air analysis and medical examinations.

Although the extent of the lead hazard is usually not considered very severe in the printing industry, nevertheless, poisonings have occurred and the potential hazard is always present, at least in some operations.

Mere absorption of lead into the stomach or even into the blood and thence into the gums or urine does not mean lead poisoning. It means simply what it says—lead absorption. This is non-disabling and non-damaging in most cases, because a considerable amount of lead can be tolerated in the human system. If the absorbed

lead floods in, however, before the body can either deposit it in the bones or excrete it, there will be lead intoxication. Thus in lead poisoning we have the pains of lead colic, together with anemia; and, if neglected, more rarely wrist drop or foot drop, and very rarely brain involvement.

There can be no efficient system against the prevention of lead poisoning unless we understand how this particular substance makes its entrance into the body. It was formerly thought that most industrial lead poisoning was due to lead swallowed because of the worker's carelessness in his personal habits, such as failing to wash, eating while on duty, and so on. It has now been proved that most poisoning cases result from breathing air that has been contaminated with lead dust and fumes.

It must be remembered that while a workman eats only three times a day, he breathes sixteen times a minute. The prevention of lead poisoning therefore resolves itself primarily in keeping the air of the work shop free from lead dust and fumes.

A dust-collecting device, known as the Impinger, is placed in close proximity to the breathing level of the workmen involved while they are performing their respective duties, so that air samples representative of the air of actual working conditions can be obtained.

That lead is present in the dust collected from the workroom and in the air has been proved by many researches. The danger is due to breathing of the lead oxide and fumes from the lead kettles, especially the remelt.

The preventive measures depend primarily upon keeping the air of the work shop free from lead dust and fumes. The following suggestions are made for accomplishing this:

1. Remelt operations should be isolated and equipped with mechanical ventilation.
2. Existing ventilating systems should be checked for operating efficiency and state of general repair.
3. Natural-draft ventilation should be replaced with mechanical ventilation.

4. Good housekeeping should be maintained to prevent lead dross and dust from accumulating.

5. Medical supervision—Pre-employment and periodic examination of workers if potential lead hazard has been shown to exist.

Solvents are used both in the printing inks and for washing composition rollers, ink-distributing systems and fountains on the presses. Many of the solvents used are trade secrets and it is impossible to get much information regarding them. Employers should demand information about the contents of various cleaning solutions so that proper precautions can be taken. The use of solvents introduces three distinct hazards, namely: (1) Health, (2) dermatitis, and (3) fire or explosion. A typical solvent used for cleaning purposes, and sometimes as a solvent in rotogravure inks, is that of benzol.

Repeated exposures to small concentrations of benzol will cause gastro-intestinal disturbances, headaches, dizziness, and frequently nosebleeds. Benzol attacks the bone marrow and thus prevents the formation of new blood cells. This solvent must, therefore, be handled with care.

Wherever possible, less toxic solvents should be substituted for benzol. This frequently can be done by using the high-boiling petroleum distillates which are considered relatively safe as far as the health hazard in this connection is concerned.

In many cases a mixture of non-toxic solvents can be used. Toluol and xylol, the higher homologues of benzol, are perhaps just as toxic, but are less dangerous under ordinary circumstances because they are less volatile. The use of the chlorinated hydrocarbons such as carbon-tetrachloride eliminates the fire or explosion hazard, but may introduce a health hazard in the plant.

The amount of solvent dispersed in the air during cleaning operations can be reduced greatly by the use of approved safety cans and plunger cans. A downward pressure on the plunger forces liquid from the can to

Mr. Meiter is director of industrial hygiene, Employers Mutual Liability Insurance Company, Wausau, Wisconsin.



moisten the sponge or swab. As soon as the pressure is released from the plunger, it rises, permitting the surplus liquid to flow back into the can. Such a can practically eliminates spillage and evaporation and effects a distinct saving.

If the solvent vapors cannot be eliminated and exposure is for only short periods, the operator can be protected with a chemical cartridge respirator. Such a respirator has been found practicable for use during the cleaning of a rotogravure press.

If benzol must be used, the possibility of developing chronic poisoning can be prevented by making periodic blood and urine studies so that the affected employee can be singled out early and moved before serious injury can result.

Pressmen are constantly handling inks and solvents. And their greatest hazard seems to be skin irritations from certain ingredients of the ink or from the solvents used in cleaning up the presses. All solvents will produce dermatitis if prolonged contact with the skin is permitted. The prevention of dermatitis consists in avoiding contact with the chemical and solvents as much as possible by the use of protective clothing and gloves, by personal cleanliness, and by omitting all caustic cleaners.

Fire and explosion hazards are always present. Frequently special drying attachments are used to dry the ink. If drying is accomplished by gas burners it becomes very important that any inflammable solvent vapors be kept below the explosive limit. An ignition hazard frequently overlooked in printing plants is that of electricity. Frequently we see open switches, ordinary electric motors, and open lights installed at locations where inflammable vapors are present. This constitutes a serious explosion hazard.

At such locations, all wiring should conform with the national electrical code; and switches, motors, and lights should be of the explosion-proof type. The extent of the explosion hazard which may be present can be determined by making tests with an instrument called the explosimeter.

Nitrogen peroxide constitutes another hazard. Nitric acid is a very destructive agent, but workers get so used to the fumes that they ignore the danger. This acid is particularly dangerous because it does not give much warning. In reacting with copper or organic matter, this acid liberates ox-

ides or nitrogen, the principal one of which is nitrogen peroxide.

Any reactions with the nitric acid which may give off nitrous fumes should be conducted in a ventilated enclosure of some kind.



## *Sail Against the Wind?*

A terrific headwind has swept across the sea of business for the past few years. Surviving business institutions have proved seaworthy under the most severe and adverse economic conditions that our country has ever known. With business still sailing against the wind, printed advertising has demonstrated the fact that it is a dependable, efficient, business-building power. At a time when no one can afford to try the unknown, we offer you the services of men whose judgment has been matured by years of close observation and successful activity in this field. Let us prove to you that the printed word, as we use it, can sail against the wind.

*Copy from Contact, house-organ of Geo. H. Ellis Company, Boston. Good angle, breezy and timely. Company dates back to year 1873*

Carbon monoxide can be looked for wherever gas-heated appliances are in use. Linotype and monotype operators may be exposed to this gas if unventilated gas flames are used to heat the lead pots. Carbon monoxide is produced in the burning of gas whenever the supply of air or oxygen is not sufficient for complete combustion. Carbon monoxide has no taste or odor. It is exceedingly poisonous to breathe

because in the lungs it combines chemically with the hemoglobin of the blood, reducing the capacity of the blood for transporting oxygen. It is, therefore, a chemical asphyxiant.

The concentration of carbon monoxide in air can be determined by means of an M.S.A. carbon-monoxide indicator, an instrument capable of detecting a concentration of carbon monoxide of one-tenth of the amount permissible for continuous exposure.

In order that gas-heated appliances may give off a minimum amount of carbon monoxide, there must be a proper quantitative relationship between the air intake and the fuel burned. It therefore becomes necessary to make periodic check-ups to see that all the gas-burning appliances are in proper adjustment. An additional safeguard is to connect all gas-heated appliances to a flue.

The practice of spraying printed sheets with "no-offset" solutions has recently become quite general and has brought up the question of whether this operation constitutes a health hazard. This subject has been investigated by *The American Pressman*, and the February, 1938, issue has this to say about it:

"Those who have paid attention to this matter will recall that several months ago we published the claims and proofs of several manufacturers of spray guns, purposing to show that the use of their mix does not constitute a menace to health. The question, though, has been brought frequently, and naturally so, because if there is anything in the mix that is detrimental to good health of the pressman it certainly should be known and reckoned with, because in some shops the atmosphere does get laden with fine particles of this mix, or at least part of it, and the man breathing such atmosphere all day long would sooner or later feel the effects of it.

"This objection has been raised enough to cause the manufacturers to have somewhat exhaustive tests made by responsible parties, and so far, to the best of our knowledge, all the reports have been favorable to the manufacturers and none have been brought to our attention that were unfavorable to the use of spray guns."

I have also personally checked the ingredients of these spray solutions with several manufacturers and in no case did I find any ingredients which would seem harmful to health. I have heard, however, of several persons

who have developed an allergy or sensitivity. Although these solutions are not considered harmful to health, it appears that ventilation is desirable if for no other reason than to prevent the spray from accumulating on the press and other nearby objects. Some of the manufacturers of the spray solutions recommend that the spray guns be ventilated in order to maintain a clean atmosphere.

Poor lighting is no doubt a greater factor in the production of accidents than in causing illness. However, too little light leads to eye-strain and fatigue, while glare or too much light will do the same. Many chronic headaches for which workers consult the eye specialist are primarily due to work under poor light.

Aside from the effects on health, proper lighting is an excellent preventive measure for accidents. The lighting of passageways, stairways, and exits should be adequate to permit the workers to progress with reasonable speed and safe footing. Good lighting also promotes cleanliness and orderliness and assists in the supervision of workers.

Light intensity can be measured by means of a small instrument commonly known as the "sight meter" which gives a direct reading in "foot-candles." The instrument is calibrated according to the following values:

0 to 10 foot candles: Inadequate for critical seeing operations.

10 to 20 foot candles: For moderate and prolonged tasks of office and factory and, when not prolonged, ordinary reading.

20 to 50 foot candles: For moderately critical and prolonged tasks, such as clerical work, ordinary reading, common bench work.

50 to 100 foot candles: For severe and prolonged tasks such as proofreading, drafting, difficult reading.

100 foot candles or more: For very severe and prolonged tasks such as fine engraving, fine penwork, fine assembly.

The manner in which to obtain the proper quantity, quality, and distribution of light in the printing industry is a technical one and beyond the scope of this paper. I suggest those who are further interested in this subject refer to the "Progress Report on Lighting in the Printing Industry" as published in the *Transactions of the Illuminating Engineering Society*, for March, 1936.

With reference to the question, "Does good lighting pay?" this study concluded that in the composing room and makeready on the press, a man might gain twenty to thirty minutes a

day by proper lighting, to say nothing of the saving to his eyes, saving in paper stock, ink, and other supplies.

One of the printer's operations, commonly called bronzing, should be considered from the standpoint of the explosion hazard. Very little published information regarding the explosion hazard of aluminum-bronze powder is available, and I believe this hazard is not generally recognized. I have heard of one aluminum-bronze dust explosion occurring in a printing establishment in Chicago which resulted in the death of the operator. Aluminum-dust explosions have occurred in other industries.

In order to have a dust explosion there must be present a proper mixture of inflammable dust and air, and

a source of heat sufficiently intense to ignite the dust. During a dust explosion in an industrial plant there are usually two or more distinct reports. The first or initial explosion usually occurs in the machine, and is quickly followed by a second or longer explosion. The concussion and force of the first explosion stirs up the dust accumulated on the floors and overhead structures and forms a suspension through which the second explosion propagates.

Dust explosions can be prevented by eliminating sources of ignition, by removing dust through proper ventilation, and by good housekeeping, thereby preventing the accumulation of dust in any sections. Proper housekeeping, especially, is stressed.

## DERMATITIS STUDIED IN SURVEY

BECAUSE of evidences of so-called "ink-poisoning" among its employees, and consequent loss of working time, a letterpress establishment requested the United States Public Health Service to make a survey which has resulted in a full report and certain recommendations being made in a recently published bulletin, Number 246,—titled, "Dermatitis and Coexisting Fungous Infections Among Plate Printers."

The major recommendation made by the Government's reporting physicians—Doctors Paul A. Neal and C. W. Emmons—is that complete pre-employment physical examinations should be made of plate-printers, rotary-press printers, and skilled helpers "by a physician who knows the hazards to the skin of workers from these occupations." In addition, periodic medical examinations of plate printers are recommended, examinations in which attention should be paid to evidence of skin diseases.

If the dermatitis, (skin inflammation) is of non-industrial origin, the employe should be advised by the physician whether or not to continue work at the trade, "since a non-industrial dermatitis of the hands may be aggravated by plate printing." In the event that the individual "is found with an industrial dermatitis, a careful study should be made of his occupational exposures, especially to inks, solvents, and cleaning materials, and the causative agent removed from his occupational environment."

Persons suffering from, or sensitive to, disorders such as asthma, hay fever, chronic eczema, urticaria (hives), or migraine (a form of headache), or having certain constitutional diseases, a list of which is given in the bulletin, "should not be employed" in the occupations handling inks.

Of 378 workers exposed to inks and cleaning materials in the establishment studied, 365 were examined. Nineteen of them had various forms of dermatitis, enumerated and classified in the report, while thirty-seven men whose hands were free from dermatitis at the time of examination had a past medical history of occupational dermatitis of the hands. It was estimated that the lost time of all the men during the period of 1910 to 1936, aggregated the equivalent of thirteen years for one man. One paragraph reads:

"Of the plate printers who either had a dermatitis of the hands or a history of it, 56.9 per cent were working with green ink at the onset of the disease, according to their medical history. Eleven of the total of thirteen inks used at this establishment caused dermatitis of the hands among these plate printers."

Because of the various statutes enacted in many of the states of the union making employers financially responsible for occupational diseases of their employees, interest in this report of the United States Public Health Service is keen among ink manufacturers, printers, lithographers, and others in the graphic arts.

# THE MONTH'S

# NEWS

Brief mention of persons, products, and processes; a review of printing events, past, present, and future

## Engravers Invite Mrs. Roosevelt

Mrs. Franklin Delano Roosevelt will be guest of honor at the opening of an exhibit, beginning October 19 and running a week, organized by a group of plate engravers to mark the 250th anniversary of copper, steel, and die engraving in America. Announcement of the forthcoming event was made by Adelaide Ulian, of New York, who is promoting the exhibit and anniversary on behalf of the National Coordinating Committee for the engraving industry.

## Issues New Supplement

Mergenthaler Linotype Company has issued Supplement No. 1 to its recently published 1200-page specimen book of linotype faces. The new supplement contains forty-eight pages, and exhibits twenty-nine new faces in sixty-one different point sizes in addition to figures and fractions, which take up six pages. Another six pages are used for A-P-L figuring, including 195 sizes in thirty-six series. Logotypes for food advertising, mathematical signs, special characters, black dots, decorative material, rule-form matrices, and other new products of the company are also shown in the supplement. C. H. Griffiths, vice-president of the company who is in charge of typographic development, commented upon the issuance of the supplement as evidence of the typographic variety in linotype.

## Rotary Honors E. W. Palmer

Rotary International has honored Elbridge W. Palmer, president of The Kingsport Press, of Kingsport, Tennessee, by electing him a director of the organization which has a constituency of 200,000 members in eighty countries. Mr. Palmer has been active in the graphic arts for many years. He has served in executive positions in the Employing Bookbinders of America and its related group, the Book Manufacturers Institute.

## Government Issues Handbook

Data designed to aid business executives, including designers and users of printed advertising, in estimating values of possible markets have been embodied in a book compiled by several bureaus of the Federal Government and published by the Department of Commerce under the name of "Industrial Market Data Handbook." The figures used in the arrangement are those obtained in the 1935 census, the latest available.

Secretary of Commerce Harry L. Hopkins, in a statement, explained that many

marketing executives in various industries assisted in selecting data to be included in the handbook, and in advising how statistical data should be arranged to make them of greatest usefulness to sales and advertising executives. The data include figures on industrial production, value of products, employment, and number of wage earners for each of the 280 industries covered. It tells their costs of materials, channels and methods of distribution of products, and gives break-downs of statistical information for each of the 3,070 counties in the United States as well as for every city of more than 10,000 population.

Copies of the "Industrial Market Data Handbook" may be obtained at \$2.50 a copy from the Superintendent of Documents, Washington, D. C.

## ALL ARE TO GET SHARE OF WORK

● Printers who have followed THE INLAND PRINTER series of articles on printing in penal institutions or other competition from tax-supported sources will be interested in an echo to these articles which has just come from Louisiana. Readers of the second article will recall that at the time of the report on Louisiana (THE INLAND PRINTER, June—page 21), that state was designating a privately owned plant as the state printer.

Now it is reported in *Printing Craftsmen*, printers throughout the state are going to share the work. This New Orleans publication, in its July issue, says, "Governor Earl Long . . . our new official, stated that state printing would be divided and each tax-paying printing plant would be awarded a portion of the work."

The report continues, "It has long been the opinion of the printers throughout the state that such distribution of work would materially aid the progress of the industry in Louisiana, helping to equalize the profits and affording work to a larger number of men throughout the state."

## Trayser Widens Activities

Lewis W. Trayser, who has been named a director of the American Type Founders, according to an announcement by Thomas Roy Jones, president of the company, has achieved distinction as a producer of printing. He is director of manufacturing of the Curtis Publishing Company and is credited with the development of the Curtis 4-and-4 precision color process by means of which the Curtis organization is enabled to do high-speed printing of four colors on both sides of a magazine page in one operation.

Mr. Trayser was born in St. Louis forty-four years ago and started in the printing business with Woodward & Tiernan Printing Company of that city. Like many other men, he took time out between 1917 to 1919 to become a soldier in the United States Army, after which he attended the Harvard School of Business Administration. He supplemented his college work with field work in the lithographic industry. He served as a member of the sales and engineering departments of the American Type Founders from 1921 up to 1924 and served in other organizations until 1931, when he went to Curtis Publishing Company as assistant supervisor of manufacturing. Four years ago he was promoted to his present position as director of manufacturing, having been previously named a member of the board of directors and also a member of the executive committee of the company. The editors of the Curtis publications heralded the news of the achievements of Mr. Trayser and his associates in the production department for having "found a way to get full-color reproductions on paper, permanently dried in a split second without the use of protective coatings to mar the pictures' clarity, and with the originals more faithfully mirrored."

## Boys Use Press and Type

Another good way to keep boys out of mischief is suggested by an item in a Chicago newspaper about three young brothers in Downers Grove, Illinois, who had been given a small printing press and a case of type by their father last Christmas. They decided to publish a newspaper during their vacation. They made \$10 on the first issue from the sale of advertising and from the 350 copies of the paper sold at one cent each. Byron White, Junior, is editor; his twin brother, Donald, serves as advertising manager. They are ten years old. Another brother, "Skippy," who is twelve, is business manager. Presumably, all of them join in the mechanical production work.



## Advertising Aids Offered

"Handy Manual" is the title of a booklet produced for the use of printers in the cooperative advertising program being conducted by the Miehle Printing Press and Manufacturing Company. The manual is designed to aid buyers of printing in preparing material for use in their own advertising. It is 4½ by 7½ inches in size, 32 pages and cover, and contains a list of 101 uses for printed matter. It suggests reasons why advertising and sales programs should be supported by the use of printed matter, and forms in which the printed messages might be delivered. It also gives instructions concerning the preparation of copy, shows specimens of type sizes—solid and leaded—and supplies data about paper and envelopes in addition to postal regulations governing the mailing of advertising pieces. Another feature of the cooperative campaign is the offer to printers of electrotypes for the reproduction of a two-color broadside, titled, "Good Prices and Good Printing." The offers of the booklets and electrotypes are made on a "share-the-cost" basis announced by the company in its plan for printers.

## Direct Mail Contest

Invitations have been extended to 5,000 business organizations and other users of direct mail advertising methods to participate in the contest for the honor of being among the "Fifty Direct Mail Leaders" for 1939. The invitations were issued by the Direct Mail Advertising Association, whose national convention will be held at Hotel Roosevelt, New York City, September 26 to 28.

L. Rohe Walter, president of the association, who is advertising director of the Flintkote Company, has announced that the chairman of this year's board of judges in the contest is Prof. Kenneth Dameron of Ohio State University, and his collaborators are Dr. Paul H. Nystrom, professor of marketing of Columbia University, and three other "prominent, capable and impartial judges," whose names will be announced at the close of the contest.

Each entrant is requested to submit a direct mail effort produced during 1938 or up to August 15, 1939, which has brought results and which he feels "deserves some recognition for its planning and effectiveness." The contest is open to all users of direct mail advertising provided the campaign does not advertise supplies, equipment, or service used in the production of direct mail. The contest is not limited to members of the D.M.A.A. The closing date for the entries is September 15, 1939. Producers, with their clients' permission, may enter campaigns prepared for their clients. However, the letter outlining the purpose of the campaign and results accrued must be on the client's stationery and signed by an executive of the client's company. Awards in such cases will be made in the names of the actual users of the campaign, but producers will be given certificates showing their names as producers of campaigns that win places in the exhibit.

In picking winners for the exhibit, the judges will allow not to exceed fifty points for results from the campaign; not to exceed twenty-five points for continuity or cohesion and plan; and not to exceed twenty-five points for copy, illustration and general ap-

pearance. The limit of one hundred points has been set as the highest which any campaign may receive. Four cups and other awards will be given to winners. Entry blanks are obtainable from the Direct Mail Advertising Association, 17 East 42nd Street, New York City.

## Printing Week in Phoenix

Something new under the western sun was "Arizona's Better Printing Week" sponsored by the Phoenix Club of Printing House Craftsmen, June 26 to 30. Governor Jones issued a proclamation setting aside the



*A word and picture sketch that neatly portrays the president of the Phoenix, Arizona, Craftsmen. It originally appeared in the monthly journal of the members*

period "when members of the graphic arts industry should put forth every effort to raise the standard of their craftsmanship." A picture of the guest speaker at a two-day conference of the craftsmen was accompanied by the legend: "William Guy Martin, in person," and other information to the effect that he was the vice-president and western sales manager of Harris-Seybold-Potter Company and that he came in his capacity as representative-at-large of the International Association of Printing House Craftsmen. An announcement was made that the club was working to secure the international convention for Arizona for 1942.

## Publications Total Drops

Fluctuations in the number of publications have been noted during the first six months of 1939 by J. P. H. Johnson, editor of N. W. Ayer & Son's Directory of Newspapers and Periodicals. Total number of all publications listed was 19,361 as of June 30, 1939, compared with 19,378 at the close of last year, a net loss of seventeen. In the daily newspaper field, thirty-two suspended publication and eight started during the six months period, registering a net loss of twenty-four, and a total of 2,032 at the end of the period. In the weekly newspaper field, eighty-nine started during the period and sixty-four suspended publication.

## Whitman Heirs Sell Business

Heirs of the late William F. Whitman, who founded the Excelsior Printing Company, of Chicago, in 1890, have sold the controlling interest in the company to O. A. Boheim, who is now vice-president and treasurer of the company. Henry M. Marks, who for about thirty years was connected with the staff of the company, is president. E. H. Boheim is secretary. O. C. Andreen, for many years president and general manager of the company, will retain some of his stock interest for the time being and will serve in an advisory relationship. He will devote much of his time to travel.

A modernization program will be worked out by the new management in which much of the cylinder-press equipment, now including 32 flat-beds, will be supplemented or replaced with other equipment. The plant now occupies 90,000 square feet of space. The concern specializes in the printing of publications, catalogs, and advertising printing of various kinds.

## Win Good Will With Printing

Use of 100,000 illustrated booklets, in addition to printed bulletins and reprints of institutional consumer and trade advertisements, distributed among salesmen and retail outlets, and the liberal use of other advertising, resulted in the "come-back" staged by McKesson & Robbins, Incorporated, during the past half-year. Net profit was \$1,384,960, according to a report of the trustee, William Wardell. The company was nearly wrecked by the Coster-Musica scandal of last December, but the use of printed statements frankly explaining to the buying public the actual conditions under which the 106-year-old company was operating won for the new management good will that changed the whole financial situation of the company. McKesson & Robbins employs 7,500 persons, and maintains sixty-five branches.

## Make Ruling on Depreciation

Depreciation on printing equipment will be allowed on a basis of twelve years life of equipment as a result of a decision in the case of The Mercury Press, of Chicago, Illinois, which has just been settled after two years of consideration by the United States Board of Appeals. C. A. Hale, certified public accountant employed by the Chicago Graphic Arts Federation, represented The Mercury Press in the proceedings before the board and argued in favor of a ten-year basis of computation, but the Commissioner of Internal Revenue contended for a fifteen-year basis. The decision in the case permits the printing concern to deduct for depreciation five-sixths of the equipment on a twelve-year basis and one-sixth on a ten-year basis.

## Quotes Census Figures

The New Haven and Bridgeport Typothetae has issued a four-page leaflet in which are quoted figures released by the United States Census Bureau indicating that the volume of book and job printing handled in the area including Bridgeport, New Haven, and Waterbury increased from a value of \$3,420,380 in 1935, to \$5,584,563 in 1937. Figures for the entire country show that the increase was 16 per cent in 1937 compared with the figures for 1935.

## Seventy-fifth Birthday

Marshall & Bruce Company, of Nashville, Tennessee, recently observed a week-long celebration of its seventy-fifth anniversary. Prior to that week and during it, the management produced printed pieces and used large space in the Nashville newspapers to inform the people of that community about the anniversary. The celebration coincided with improvements and enlarged space "for the creation and production of every type of commercial and advertising printing."

The public was told about the new office, retail store, and plant with its "more efficient production, geared for two or more separate shifts" and "equipped to handle all



Bruce P. Shepherd, President, Nashville's Marshall & Bruce Company

types of letterpress printing and offset lithography." Also, advertisements in newspapers, direct mail pieces, and personal invitations urged people to visit the premises and see for themselves. They came during every business day the memorable week of "open house" from July 10 to 15 in gratifying numbers.

Seventy-five years ago, Andrew Marshall and James H. Bruce started the business, today headed by their nephews and namesakes, Bruce P. Shepherd, president of the company, and Marshall Hotchkiss, its secretary and treasurer. The volume of business is indicated by two facts included in a newspaper story about the firm's celebration to the effect that "in the past five years, it has paid out approximately \$1,400,000 in wages and compensation, and has paid more than \$80,000 in state, county, and city taxes." It employs about 135 persons.

The older building now occupied by the company was purchased last year, and its 40,000 square feet of floor space was remodeled to better serve the needs of the printing and lithographing plant. A two-story structure adjoining the purchased building was erected to accommodate the needs of the retail office furniture and stationery store and to provide office space for the whole business. The layout in the production departments was made on a straight-line basis to avoid lost motion in routing work through the plant by having successive processes follow in their natural order.

## British Promote Contest

The British Stationery Council, of London, England, has announced its eighth annual competition for "Better Business Stationery." Entries will be received until September 30. The contest's object is to create an appreciation for better stationery all along the line from the papermaker to the user, thus encouraging the use of "better paper, better envelopes, better design, better ink, better printing, and a better knowledge of good stationery's influence."

"All progressive firms should realize that in their letterheadings and envelopes they have the most effective means of conveying to customers an impression of efficiency and



### OPEN HOUSE

All This Week

**T**HIS WEEK, the Marshall and Bruce Company cordially invites you to visit our new plant and see our improved facilities for the creation and production of every type of commercial and advertising printing.

Here you will see, in operation, one of the most modern commercial printing plants in the South.

The entire plant is heated by one floor and is laid out for a system of straight line production so that material is handled without the usual wasteful repetition. Large windows and daylight provide the perfect light so necessary for fine printing, and the plant is spread out over a more spacious layout.

Our new offices and retail store include a separate two-story building adjoining the plant. Our three thousand square feet more are located in the company yard.

And in our display rooms you will see a choice selection of the complete stock of stock and type office hardware which we carry at all times.

We cordially urge you to visit us. We want you to see our new offices, our retail store and display rooms. We want to show you the results of the work we are doing, our extensive equipment, our straight line production system, and our improved facilities. Come and see for yourself, our representatives will be glad to show you the results of our work.

Advertising departments—the new and modern one that you see in our new plant—will be shown to you in our new plant.

May we expect you? Come to see us. And we guarantee, before you leave, that you will have a new idea of the progress and efficiency of our business.

**We Cordially Invite You To Visit Our New Plant!**

**MARSHALL & BRUCE CO.**  
 Printers and Lithographers  
 Office Furniture and Supplies  
 401-7 TWELFTH AVENUE, SOUTH TEL. 6-3661

good standing," reads part of the announcement. "Poor and cheap stationery definitely gives a bad impression of any firm using it."

Watermarked paper of not less than 25 per cent rag content is required in the specimens submitted for entry in the competition, and an envelope actually used in conjunction with the letterhead must be part of the specimen. No restriction as to process of production is made. Separate prizes are to be awarded for winners in each class; letterpress, lithography, die-stamping, and letterheads done by combined processes. Advertising agencies, designers, and business houses may enter their specimens on the same basis as producers. In judging the merits of specimens, design, quality of printing, quality and suitability of paper and envelope, and general fitness for purpose will each be given the same weight in points.

## Seattle Officers Elected

Officers of the Seattle Master Printers, elected at the annual meeting, held August 1 were: president, Wendell S. Daggett, Far-west Lithograph & Printing Company; vice-president, R. C. Torrance, Western Printing Company; secretary-treasurer, Charles F. Burrows, Newman-Burrows Company. J. S. Brinkley is executive secretary of the organization. Directors include the elected officers and the following: Frank C. Pratt, George N. Handley, Leo R. Diers, John H. Reid, Frank McCaffrey, Fred E. Baker, and J. C. Ward.

## Toof Started in War Times

Stories of former presidents of S. C. Toof & Company, of Memphis, Tennessee, are being told in the publicity sent out from that company in connection with its seventy-fifth anniversary celebration, now being observed.

The business itself had been established by Stephen C. Toof as the Franklin Job Printing House after the war between the states, but Toof's exploit as a loyal soldier and printer of the South revolves around the capture of Memphis in 1862 by the Union forces. Toof, a printer, was employed on *The Appeal*, a newspaper published in Memphis, considered of vital importance to the Confederate cause. When the fall of Mem-



Marshall Hotchkiss, Secretary and Treasurer, a nephew of co-founder

phis was imminent, Toof directed the transfer of the printing press, type cases, and other essential equipment from the shop to a southbound train. For three years, he produced *The Appeal* in various southern locations until 1865. Then Union forces captured Mr. Toof and seized printing equipment, all of which, except the printing press, was destroyed. The press was eventually returned to Memphis, where it became the foundation of the successful business now operated under the name of S. C. Toof & Company.

Otto Zahn, another former head of the establishment, who retired in 1922, was listed in "Who's Who" because of his world-wide fame as a bookbinder and the winner of notable prizes in world-wide competitions. He had entered the employ of S. C. Toof & Company in 1884, after having learned and followed his art and trade in several foreign countries. He succeeded, as president of the company, William H. Bates, brother-in-law of Mr. Toof, and who, during his earlier years, had served as president of the Memphis Typographical Union.

Officers of the company now are: president, St. Elmo Newton; executive vice-president, S. Toof Brown; vice-president and city sales manager, R. Bates Brown; vice-president and out-of-town sales manager, St. Elmo Newton, Jr.; treasurer, W. E. Wilson; secretary, J. O. Bratton.

Approximately 160 persons are employed in the several departments of the company whose payroll totals about \$5,000 a week.

The firm's production section has equipment and personnel to do steel die and copperplate work, typesetting, lithography, automatic and cylinder presswork, ruling, and binding. In answer to a letter of inquiry from the editor of *THE INLAND PRINTER*, executive vice-president S. Toof Brown wrote:

"We feel that a continuous service of seventy-five years coupled with a definite policy of endeavoring at all times to be fair to employees and customers alike is a record that we can be a little proud of, especially since these sound principles have enabled us to weather the many economic setbacks of the South. We continue to think, however, in terms of pioneering, and look forward to the future with confidence."

### Palmer Heads N.E.A.

Howard W. Palmer, newly elected president of the National Editorial Association, who is editor and general manager of the *Greenwich, Connecticut, Press*, started out intending to become an attorney. He had enough money to complete his first year of law study at Columbia University. When it came time to pay tuition for the second year, he had to get a job instead. The job he got governed his choice of a career, for he became a reporter on the *Watertown Times*. Then he renewed his studies at Columbia, not in the law school, but in the school of journalism. He completed the course and graduated from the university in 1917. He returned to active newspaper work, served in various capacities, became associated with the newspaper of which he is now the editor and general manager, and is rated one of the progressive editors in the weekly field. As president of the National Editorial Association he is expected to put new energy into the organization with the help of the other officers and members of the board of directors. A new program of activities is now being worked out which will be reviewed by a representative group at a specially called meeting to be held in Chicago in October.

Other officers elected at the recent convention of the National Editorial Association, held on board the S. S. *Aleutian* on its voyage to Alaska and back, include the following: vice-president, Walter H. Crim, of the *Republican Leader*, Salem, Indiana; treasurer, W. H. McIntire, of the *Mail*, Vandalia, Missouri. Arne Rae is employed as executive secretary of the association, with headquarters at 211 West Wacker Drive, Chicago.

Members of the new board of directors are W. H. Conrad, of the *Star-News*, Medford, Wisconsin, who retired as president at the recent convention; Roy A. Brown, of the *Independent*, San Rafael, California; R. B. Howard, of *Madison Press*, London, Ohio; Edwin F. Abels, of *Douglas County Republican*, Lawrence, Kansas; A. S. Hardy, of the *News*, Gainesville, Georgia; Vernon T. Sanford, president, N. A. M., Oklahoma City, Oklahoma; and Hugo G. Ball, of the *News*, Hood River, Oregon.

### Appoint Ben H. Black

Ben H. Black has been appointed a member of the staff of the Intertype Corporation in connection with the branch sales organization in San Francisco. His territory consists of ten counties in California.

### Plan Legibility Tests

Twelve universities will be requested to make tests among their respective student bodies to learn more about type-face legibility. An experimental test was recently made at Boston University under the sponsorship of *Direct Advertising* published by the Paper Makers Advertising Association. The results of this test, which are not considered conclusive, gave the experimenters a basis upon which to proceed with the tests to be conducted in the other universities during the next school year. Carl P. Collins, printer to Yale University and chairman of the type-test committee, will develop a uniform type-test sheet and will have charge of all details connected with the poll.

In an announcement, Mr. Collins said that no one knows what is the most legible type face, and that the present undertaking is "an attempt to get an unbiased poll of many general readers as to what they think is the most legible type out of a dozen different, and largely unrelated, type faces."

Type faces used in the experimental test included Baskerville, Caslon, Century, Cheltenham Bold, Futura Medium, Garamond Regular, Garamond Bold, Girder Heavy, and Scotch Roman.

### Erect \$3,000,000 Mill

Coated papers, manufactured on high-speed equipment, most of it to meet requirements of *Time* and *Life* magazines, will be produced in a new paper mill to be erected at a cost of \$3,000,000 near Houston, Texas, by The Champion Paper and Fibre Company. Plans were approved by the board of directors at a special meeting held in Hamilton, Ohio, August 8. The new project will be the third manufacturing plant of the company, and will contain a Fourdrinier paper machine, costing approximately \$1,000,000

which will be the world's largest combination papermaking and paper coating machine. Its over-all length will be 400 feet. It will have a wire width of 214 inches, and will deliver a sheet, 198 inches trimmed width, at the rate of 1500 feet a minute.

The building to be erected will be 140 by 828 feet, two stories high in the main section, with a three-story finishing room and three-story storage section. Construction will be of brick and steel to match the adjoining sulphate-pulp plant erected by the company in 1937. It is expected that building operations will be complete within about ten months.

### Duplicators Defeated

Installation by the state of Colorado of Multilith presses was planned by the officials until the employing printers of Denver heard about it and sent emergency letters to printers' groups throughout the state. Four arguments were presented to the state officials which defeated the proposal. They were: Purchase of these machines would be a start in putting the state into the printing business. Labor would be hired at a fraction of the rate paid by commercial printers. Such action would be another case of Government's encroachment upon private enterprise from which the Government derives taxes. The action would eventually lead to less employment at fair wages.

### Issues Football Booklet

With the football season approaching, Goes Lithographing Company, West 61st Street, Chicago, has issued a sixteen-page football calendar in colors, containing 180 college football schedules for the 1939 season. Colors used in lithographing the booklets, which are 4 by 9 1/4 inches in size are

## NOW JULY 1 FOR OLD LABELS

● Manufacturers whose products must be re-labeled under the new Food, Drug, and Cosmetic Act, recently enacted by the United States Congress, may have until July 1, 1940, to use up their stock of labels on hand. The word "lithograph" in the amendment, which extended the time limit for the manufacturers, caused some excitement last month among interested groups representing the letterpress printers. They received the impression that only such labels as were lithographed could be utilized for the extended period. Inquiry by the Chicago Graphic Arts Federation of its Washington connection, namely, the National Council of Business Mail Users, resulted in the opinion being expressed by the executive vice-president, Thomas Quinn Beesley, that the word "lithograph" as applied to the labels was used to apply to all forms of

labels. In the hearings before the congressional committee considering the proposal of using labels on hand, the lithographers were represented, but apparently the letterpress printers were not represented, with the result that the word "lithograph" was placed in the law.

The labeling requirements under the new law covering food, drugs, and cosmetics are numerous and specific, and according to well informed persons will necessitate many interpretations on the part of the enforcing administrative agency of the Government. The advice issued by the Food and Drug Administration is to the effect that manufacturers, printers, lithographers, and others affected by the application of the new law to industry, should confer with the administration about specific problems before deciding upon actions or policies.



pigskin brown and dark green. The calendars were produced to provide advertisers with a timely medium. Messages and imprints can be inserted on the front covers. In conjunction with each schedule, data concerning games won and lost, college colors, nicknames, and records are given. Other data are included, such as various conference records, undefeated teams of the previous season, and explanations of referees' hand signals.

### Printers' Postage Stamp

A. E. Giegengack, Public Printer of the United States is credited with inducing the Post Office Department to authorize the issuance of a commemorative three-cent postage stamp to make its appearance September 25, the date of the opening of the Fifth Educational Graphic Arts Exposition in Grand Central Palace, New York City. The special stamp will commemorate the introduction of printing 300 years ago in the colonies which were to become the United States of America. Stephen Daye imported the printing press from England, and in 1639 produced *THE FREEMAN'S OATH* as his first "job." Unfortunately, no copy of the OATH is known to exist, but the press is in the museum of the Harvard University.

### Want Park Named for Printer

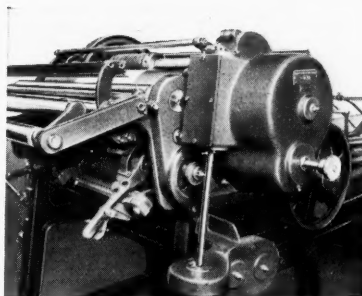
Proposal that a park in Brooklyn be named "Walt Whitman Park" in honor of Walt Whitman—book designer, printer, and writer, is being urged by the Brooklyn Printers Group of the New York Employing Printers Association. Adjoining the proposed park at Fulton and Cranberry Streets, is the site formerly occupied by Rome Brothers print shop in which Whitman set the type and supervised the printing of the first edition of the "Leaves of Grass" in 1855, said to mark the beginning of a new epoch in American literature and bookmaking.

### June Exports Greater

Exports of printing and bookbinding equipment for the month of June were 46 per cent higher than for the same month a year ago, so a report issued by the machinery division of the Department of Commerce states. Total for June of this year was \$1,049,258 as compared with \$717,957 for the same month last year. The four classes of equipment included in the total and comparative figures on exports are: Printing presses, \$491,567—\$179,155; typesetting machines, \$197,142—\$243,477; bookbinding equipment, accessories, and parts, \$38,865—\$39,695; other machines and accessories, \$321,684—\$255,630.

### Noted English Printer Passes

Throughout the British Isles, the name of the printing firm of Bemrose & Sons, Derby, England, is well and favorably known because of the achievements of Dr. Henry Howe Bemrose, inventor of the Derby Print Process of reproduction by offset lithography of art subjects without visible screen. During July, Dr. Bemrose died at the age of 82 years. He was the son of the late Sir Henry Bemrose, conservative member of parliament for Derby. Two sons, Max Bemrose and Clive Bemrose, continue active in the business, the former being prominent in the Master Printers Federation.



### Electric Eye "Spot Sheeting" with NEW Beck Differential

Greater accuracies than ever before on this unit now available on Beck Sheet Cutters, for cutting to printed register. Send for data and prices to Charles Beck Machine Co., 414 N. 13th St., Phila., Pa.

### Are you considering Carbon Interleaved Set Forms?

Why make them less than the best? We can show and assist you to make them at the right cost with letterpress equipment. A complete service for materials, procedure, cost, sales and manufacturing information. Address F. J. Hauer, Carb-n-set Business Forms Co., Dayton, Ohio.

### Tucker Offers Letterhead Ideas

Exceedingly helpful material for you: More than 150 outstanding type-designed headings in colors. A veritable gold mine of practical letterhead ideas for printers, you will want to get full benefit of this service in your own work. A post card to Tucker Letterhead Idea Service, New Philadelphia, Ohio, will bring samples and special low price.

To keep in step with modern trends, The Inland Printer—for the first time in its history—is setting aside this special section for NEWS-ADS in Review—announcements by manufacturers of new products, new prices or new features of well known products, new services, printed specimens, style books, samples, new catalogs, and other facts to help plant executives and buyers. To tell their story in their own words, companies have paid for space used, but their statements are subject to editorial control. Write firms direct for the data you want.

## LARGEST ISSUE SINCE 1931!

You are reading the largest issue of *THE INLAND PRINTER* since November, 1931. What is even more significant, as an index of selling power, is the fact that this issue contains more advertising lineage than any issue since late in 1929.

There is positive evidence for you that our readers rely on us for authoritative information—and that advertisers know *THE INLAND PRINTER* will put their message before printing and advertising executives promptly and effectively.

It is the consensus of the leaders in the printing and allied industries that *THE INLAND PRINTER* is the "leading publication in the field." There is a good reason for this. It is reader confidence.

Confidence built up by reporting all the news, tracing new developments completely and accurately, and taking a definite stand for what we feel is for the best interest of the industry on controversial issues has made this record-size issue possible.

### Gather Twice as Fast With Low's Gathering Cabinet

The Low Gathering Cabinet is a thoroughly practical inexpensive device that greatly facilitates the gathering (collating or assembling) of sheets of paper into sets. Ordinary gathering requirements are handled with a single Cabinet. For gathering sets containing a large number of sheets two to five Cabinets arranged in a circle around a swivel chair make an excellent unit for fast, economical gathering. Operators gather over 6000 sheets an hour.



Cabinet has eight tilted shelves or bins spaced  $2\frac{1}{2}$ " apart. The tilted shelves prevent gathering more than one sheet and are constructed to give the paper a fanned edge that facilitates gathering. Cabinet holds over 500 each of eight sheets  $12 \times 18$ " or sixteen sheets  $8\frac{1}{2} \times 11$ ", or similar sizes. Quickly adjusted for any size sheet up to  $12 \times 18$ ". Easily moved out of way when not in use.

Write to John M. Low & Company, 223 West Madison Street, Chicago, Illinois, U. S. A., for illustrated folder.

# IMPROVED PRODUCT

● Advertisers experienced in profitably cultivating selected markets know that publication members of The Associated Business Papers are tops in their fields. They know that the A.B.P. symbol stands for honest, known paid circulation; straightforward business methods and editorial standards that insure reader interest.

But A.B.P. members know that, in changing times, they cannot rest upon the laurels of past achievement or present recognition. This very year they have

modernized the *Code and Standards of Practice* upon which their service to readers has been founded. Guide-posts of ethical business paper publishing for 23 years, these Standards have been made stronger and more enforceable than ever before.

Read them and you'll understand the sincerity with which A.B.P. publications are constantly striving to improve their worth to readers . . . their value as advertising media.

## THE A.B.P. CODE AND STANDARDS OF PRACTICE

● *The publisher of a business paper should dedicate his best efforts to the cause of business and social service, and to this end each member of The Associated Business Papers, Inc. pledges himself:*

1. To consider, first, the interests of the subscriber.
2. To subscribe to and work for truth and honesty in all departments.
3. To endeavor to be a leader of thought in his editorial columns, and to make his criticisms constructive.
4. To encourage all constructive efforts to improve the standards and quality of advertising.
5. To avoid unfair competition.
6. To determine what is the highest and largest function of the field which he serves, and then to strive in every legitimate way to promote that function.

● *Further, each member of The Associated Business Papers, Inc. shall subscribe to and agree to conform to the following Standards of Practice:*

1. To refuse to publish paid "write-ups" and to measure all news by the standard: "Is it real news?"; to publish no material in the editorial pages as a consideration for advertising space; to re-

frain from the violation of copyrights of other publishers and use every reasonable means to prevent publication of material which is the rightful property of another publication.

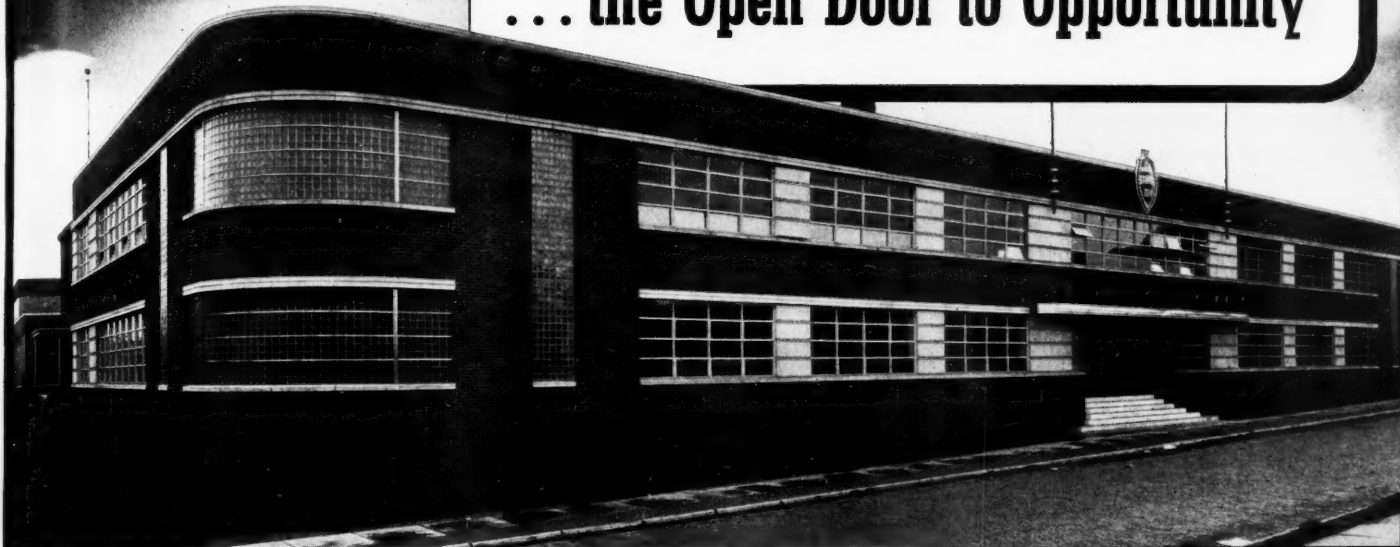
2. To make available to all advertisers the prices of all space, preferred and specified positions, colors, bleed borders, inserts and services which a publisher may offer, and to make no discrimination between advertisers as to prices, run-of-paper positions or terms or methods of payment for the same amount and same kind of space used under the same conditions and within the same period of time.



3. To refuse to run any advertising copy in which any statement or representation is made which disparages or attacks the goods, prices, services or advertising of any competitor or of any other industry, or which contains statements or claims about an advertiser's own products or services which the publisher knows or has reason to believe are untrue or inaccurate.
4. To promote and sell his own publication solely upon its merits; to make no misrepresentations either in the use of research data and survey results, or otherwise; to employ no advertising or personal selling methods which are unfair to other publications and advertising media.
5. To make available to advertisers full information regarding character and extent of circulation, including detailed circulation statements, subject to proper and authentic verification; and to maintain effective control over circulation sales channels to the end that (a) subscriptions will be solicited only from individuals and firms interested in the field or industry served by the publication; (b) any premiums offered will not be introduced into any sales combination to the extent that the paper is bought mainly to secure the premium; (c) the amount of commission paid salesmen shall not be so great as to encourage price-cutting to obtain a subscription order.

THE INLAND PRINTER • CHICAGO • ILLINOIS

# *A Modern Plant* ... the Open Door to Opportunity



Progressive management deserves a modern plant ... and the opportunities made possible by new and low cost plant designs and improved methods of operation. For example, here are some of the advantages possible with new designs which Austin will provide quickly and at low cost:

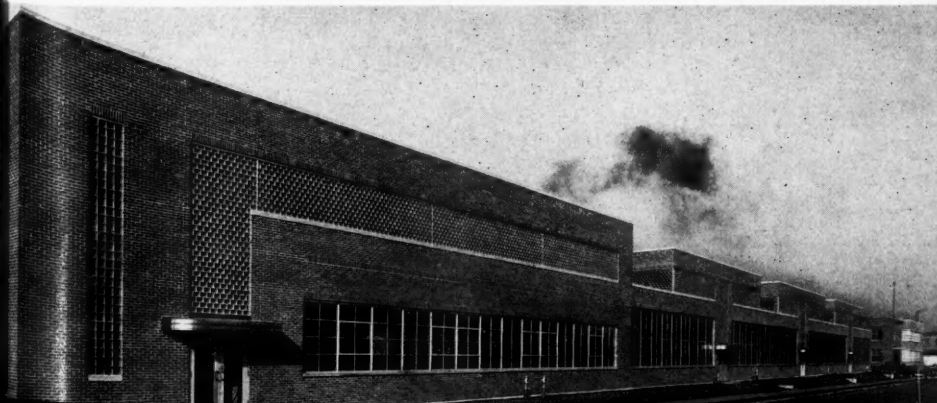
- ... Plant interiors flooded with light, free from glare day and night.
- ... Complete air conditioning, reducing spoilage, insuring employee comfort.
- ... Smooth-flowing production layouts in large, unobstructed areas.
- ... Practical facilities for receiving and shipping.

- ... Floor capacity for heavy loads and elimination of vibration.
- ... Full provision for future expansion.
- ... Attractive plant appearance that adds prestige and advertising value.
- ... Highly flexible designs that permit rearrangement of layout and shifting of heavy machinery.

Austin Engineers, with years of experience in the printing field, have helped a number of firms by providing advanced plant designs, modern layouts and economical construction. These complete projects are handled on an "Undivided Responsibility" basis. One contract guarantees *in advance*: low total cost; quality of materials and workmanship; time of completion, with bonus and penalty clause if desired.

Austin offices from Coast to Coast provide a "Truly Nationwide" building service. Suggested designs and cost estimates on 10,000 sq. ft. or more, gladly furnished without obligation. \*Ask for new folder entitled, "Modern Industrial Plants" by Austin.

Below ... showing expansion of plant facilities ... providing 150,000 sq. ft. additional floor space.



Modern enlarged plant of The Standard Register Co., Dayton, O., designed and built by the Austin Company



Private office in two-story and basement Administration Building, which is completely air-conditioned.



Press Shop Interior. "Heat values" used for induced natural ventilation. Uniform lighting intensity, 20 footcandle

## THE AUSTIN COMPANY

*Engineers and Builders*

New York  
Philadelphia  
Pittsburgh  
Cleveland  
Chicago  
Detroit



Indianapolis  
St. Louis  
Houston  
Oakland  
Los Angeles  
Seattle



## LEARN . . . OFFSET LITHOGRAPHY

Complete courses in Offset Presswork, Camera and Platemaking. Day and evening classes. Practice as well as theory on the latest up-to-date equipment. A-1 instructors with many years of practical experience. Low tuition. Write for particulars. Courses also offered in Presswork and Bindery, Advanced Presswork, Layout and Lettering, Hand Composition, Elementary and Advanced Estimating, Lockup and Imposition and Printing Production Methods.

**Chicago School of Printing and Lithography**  
Dept. ILP-939 • 610 SO. FEDERAL STREET • CHICAGO

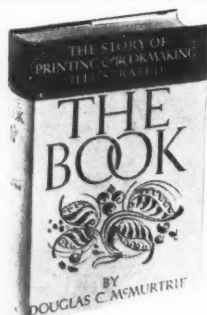
## Litho Media

The show-case of the lithographic field.  
The how, why, and result of more than  
forty mediums for lithography. A vital  
demonstrator for intelligent selling.

**\$15**

Limited to 3,500 copies, 1,000 already disposed of. 205 pages. Size 11x15; in 2 colors on 100-pound antique stock; slide-box cover. Fifty actual exhibits.

THE INLAND PRINTER • BOOK DEPARTMENT



**KNOW**  
the historical  
background of  
the printing craft

You will find it authoritatively  
yet entertainingly told in

## THE BOOK *The Story of Printing and Bookbinding*

By DOUGLAS C. MCMURTRIE

676 pages, over 130  
illustrations. Hand-  
somely printed and  
durably bound.

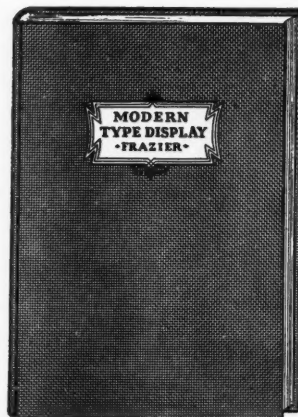
**\$4**

POSTPAID

In this single volume is the whole story of the origin and the development of printing from the beginnings of writing down to the present day. The reading of this book will prove an inspiration to any printer who is truly interested in his craft.

*The Inland Printer, 205 W. Wacker Drive, Chicago*

## MASTER *the* Fundamentals First!



**This  
Book  
Now**

**\$2**

## MODERN TYPE DISPLAY

This text, by J. L. Frazier, Editor of THE INLAND PRINTER, presents those basic principles of good typography and display, so essential to creditable results. Third and revised edition first published in 1910. Not "modernistic."



## FISHING for Ideas?

Since 1883, master printers and craftsmen in more than 50 countries of the world have relied on this business and technical publication as a dependable source of inspiration and help.

**1¢ a Day**  
Compare  
values by  
what you  
get for the  
money!

—THE—  
**Inland Printer**  
205 W. WACKER DRIVE, CHICAGO, U. S. A.

## Here's A Typesetting Mark!

**\$2.25**  
a copy



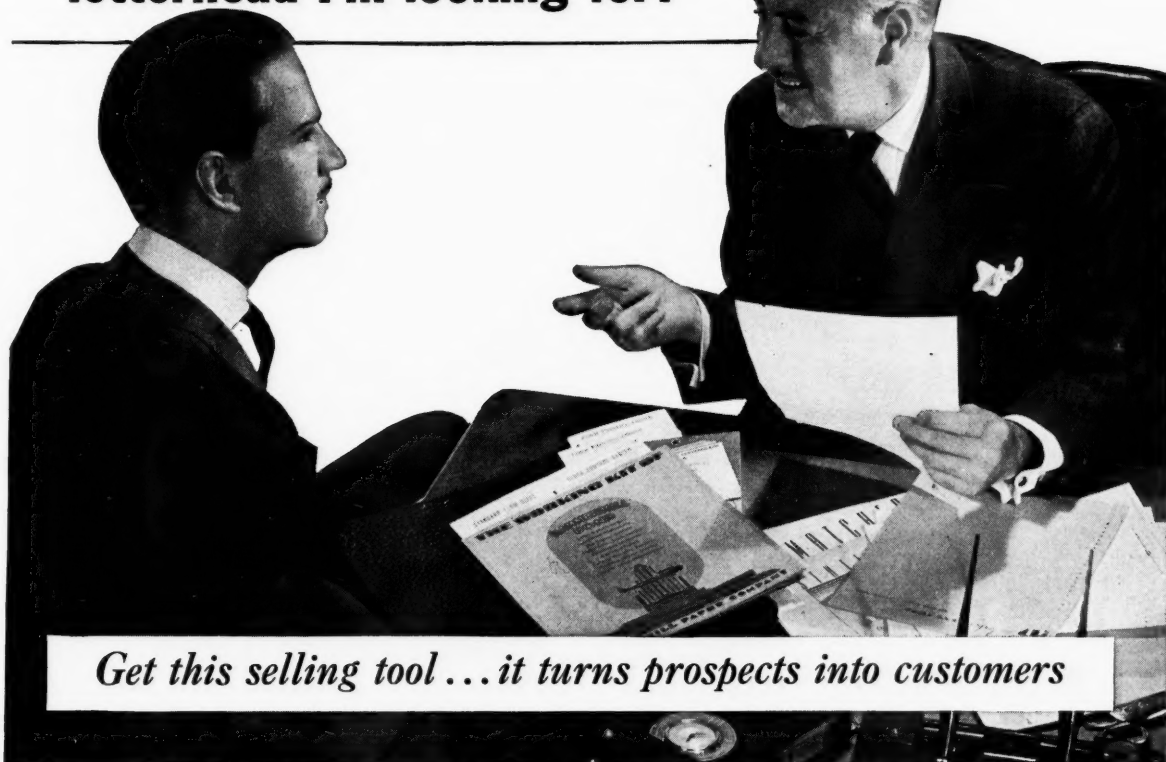
**Boy Sets 1100 Lines  
12th Learning Day**

The Courier-Journal of Louisville, Ky., after using the unique Harding course of instruction in Linotype touch operating reports: "The first boy that we started set 1030 lines on the 11th day and 1100 lines on the 12th day . . . with a covered keyboard!"

**"A Practical Touch System,"—Harding**

THE INLAND PRINTER, Chicago

**"Now that's the sort of letterhead I'm looking for!"**



*Get this selling tool... it turns prospects into customers*

**B**AREHANDED selling is difficult. When a man's in the market for printing, he wants to see what he's buying.

"How will my new letterhead look?" ... "Will a second color improve it?" ... "What style of envelope?" ... "How can I improve my printed forms?" ... "How about paper?"

Every prospect has his own problem. Don't just talk the answer. Show it. Prove it ... with the Working Kit of Hammermill Bond.

Letterheads, envelopes, matched stationery, printed forms, how and where to use color, what paper to choose—with this Working Kit you have all the answers at your fingertips. Get a copy ... carry it with you when you tackle your next prospect. It can help you turn him into a steady and profitable customer. The Working Kit of Hammermill Bond is **FREE**. Send for it now.

### How the Hammermill Bond Working Kit helps you

**1. MATCHED STATIONERY.** Six sample sets designed with popular type faces you can match or approximate. Show your customer how to improve all his stationery by giving it a family resemblance. Land the whole stationery order, instead of letterheads alone.

**2. SAMPLE LETTERHEADS.** Four examples of how printed headings produced with type can dramatize a business. For the customer who wants "something out of the ordinary."

**3. "HOW TO GET MORE SALES from your letters."** Profit opportunities in letterheads and envelopes. Strong selling arguments. Plus a check list to back them up and pin them down to cases.

**4. PRINTED FORMS.** How to design a Business Form. 25 checks on form efficiency. Sample forms helpful to any business. Practical suggestions for bringing any of

your customers' form systems up to date.

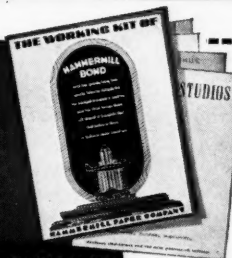
**5. COLOR SIGNAL system.** How color speeds routine, eliminates errors. How, when, where to use colored paper for office printing. This system costs your customer nothing to apply, but it can bring you a steady string of orders.

**6. ENVELOPES.** How to select them. Styles, sizes, colors. Matching envelopes with letterheads, out-going forms. How to double your profits by selling envelopes with the flat paper job.

**7. SAMPLE SWATCH of Hammermill Bond.** You've sold the job. How about paper? Hammermill Bond, of course. A name your customer knows and respects. A paper that will please him in use, bring him back with a reorder. Swatch shows colors and finishes of Hammermill Bond for every business use. (Full stock information on back of Kit.)

**HAMMERMILL  
BOND**

LOOK FOR THE WATERMARK ... IT IS HAMMERMILL'S WORD OF HONOR TO THE PUBLIC



Hammermill Paper Company  
Erie, Pennsylvania

IP-SE

Please send Working Kit of Hammermill Bond.

Name \_\_\_\_\_

Position \_\_\_\_\_

(Please attach to your business letterhead)

# PONCE DE LEÓN

Sought the Fountain of Youth  
—so that he might enjoy a long life!



Rollers for special printing processes—rotogravure, aniline, coating, varnishing and gluing—all have been developed by Ideal to give the longest possible service and at the same time maintain the high quality of work produced.

Write and acquaint us with your requirements, and learn the latest developments toward fulfilling your needs.

IDEAL ROLLERS have been developed to the point where they have not only a *long* life—but a *lively* one!

IDEAL O-X PROCESS ROLLERS for rotary and letter presses have a base which is guaranteed for years and a surface which is renewable at low cost whenever fresh surfaces are needed for particularly fine, exacting jobs. *O-X base rollers will not harden!*

IDEAL LITHOGRAPHIC AND TYPOGRAPHIC ROLLERS give satisfactory service for an average of over three years, according to a recent survey made by a national trade publication, and quality is their chief characteristic.

GRAPHIC ROLLERS are guaranteed not to melt, and yet they retain their soft, pliable surface throughout their life.

IDEAL DX NEWSPAPER ROLLERS not only have an unusually long life but require less frequent regrindings than others. Time after time, DX Rollers have pepped-up halftone pages to give them real snap and vigor.

## IDEAL ROLLER & MANUFACTURING CO.

CHICAGO, ILLINOIS Branches in the principal cities LONG ISLAND CITY, NEW YORK



● *The Paper in Tune with Today*



# MAXOPAQUE

*THE ALL-PURPOSE PAPER FOR*  
**MODERN PRINTING**

● Despite the fact that Maxopaque is America's favorite opaque paper, we know that **OPACITY** alone is not enough. So we combine **WHITENESS** and **STRENGTH** as well, to make a truly perfect paper for modern printing. Its cost, performance and ability to satisfy are all you can ask. Test it on your presses.

**THE AETNA PAPER COMPANY • DAYTON • OHIO**

*Also Manufacturers of Rag-Content Correct Bond*

OFFSET  
RUBBER  
GRAINING  
COMPOSITION  
ROTOGRAVURE  
NON-MELTABLE  
FABRIC-COVERED  
VARNISH & LACQUER  
**ROLLERS**

**SAM'L BINGHAM'S SON MFG. CO.**

— CHICAGO —

ATLANTA  
DALLAS  
ST. LOUIS

CLEVELAND  
HOUSTON  
MINNEAPOLIS

NASHVILLE  
INDIANAPOLIS  
PITTSBURGH

DES MOINES  
KALAMAZOO  
SPRINGFIELD, O.

DETROIT  
KANSAS CITY  
OKLAHOMA CITY

# Paasche "NO-OFFSET" Process

Fully Protected by Licenses under U. S. Patent Nos. 2,078,790; 2,110,052; 2,114,723.

## Only an IDEA in 1931...

## NOW—Standard Pressroom Equipment!

PLANT-TESTED and APPROVED by thousands of installations during past nine years, the Paasche "No-Offset" Process is an accepted procedure in all modern pressrooms today. Because Paasche "No-Offset" Units MORE than pay their own way, smudging

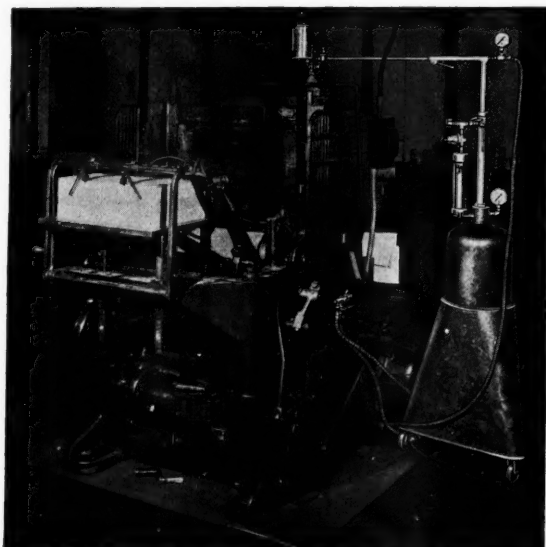
and ink offset are no longer tolerated by letterpress printers and offset lithographers. Regular use of the Paasche "No-Offset" Process results in—

**Cleaner Printing! Faster Press  
Speeds! Much Lower Costs!  
Speedier Service!**

Increase your profits by installing the new Airoperated Paasche "No-Offset" Unit best suited to your needs. The perfected Automatic Off-and-On Timing Valve and special aircheck valve provide fast, snappy, positive action of the "No-Offset" Airguns, which is essential if effective "No-Offset" treatment is to be had.

There's a Standard Unit for Every Pressroom Need—Portable Electric Compressor Models—Portable Pedestal Units—Pressmounted Units. Ask for a demonstration of standard equipment in your own plant. Learn first-hand how you can do work more profitably—step up your output—and put yourself in strong competitive position.

See Paasche Units in actual operation at our Booth No. 241, Graphic Arts Exposition, New York.



Type AE-30" Portable Aircompressor Gravity Feed Airoperated Unit for treating sheets up to 30" in width.

### New Grade FS Solution

Most effective sheet separation! Free from Offensive Mist! Harmless! An exclusive formula that has no equal! Economical! Positively Prevents Offset on M. F. Super Enamel Stock, Lithocoated, and Cardboard. Get new low prices in 1, 5, and 55 gallons.

# Paasche Airbrush Co. • NO-OFFSET DIVISION

1905 Diversey Parkway, Chicago, Illinois

Canadian Distributors: Harris-Seybold-Potter Ltd., Toronto—Montreal.

Please Mention The INLAND PRINTER When Writing to Advertisers



## Holiday Profits



**G**OES Holiday Sample Kit will help you get **MORE** business from regular accounts, and also add new accounts to your books. It is more than a portfolio of samples. It is a complete selling unit. It tells you where and how to sell the beautiful Holiday Letterheads, Folders, Calendar Cards, etc. It furnishes you with copy suggestions for Sales and Greeting messages. It includes a splendid group of Imprinted Specimens illustrating many applications for this Holiday material. Suggested selling prices will allow you a handsome profit. Every one you meet is a prospect.

SEND FOR FREE PORTFOLIO

**GOES LITHOGRAPHING COMPANY**  
35 W. 61st St., Chicago • 53K Park Pl., New York

### FLASH!

**YOU CAN** do business with **GOES 1939 Football Calendar**, containing 180 college and university schedules from coast to coast, and much additional information of lasting value. Send for free sample and prices.



### The Weber & Fields Touch . . . .

Dad used to laugh his head off when Weber would stick his finger in Fields' eye. The grand old team broke up in 1906 . . . not long after Kimble brought out the idea . . . of a motor built specially for printing equipment. New idea in those days, but just as sound as the profits and prestige it has brought printers through these many years. **KIMBLE ELECTRIC COMPANY**, 2011 W. Hastings St., Chicago, Ill.

**Kimble** MOTORS

Distributed by **AMERICAN TYPE FOUNDERS**  
Branches and Sales Agents in Twenty-Five Cities

### HOUSE ORGANS

For a few printers who can afford \$15 to \$50 a month for our service, we have a proposition under which they can publish their own house-organ monthly, edited by William Feather. Write **WILLIAM FEATHER** 812 Huron Road Cleveland, Ohio

**STOP OFFSET** →

Get your free copy of this new bulletin—"10 Ways to Avoid Offset." Valuable—practical—shows how to save money—improve presswork.

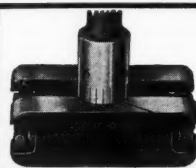
**FREE**

E. J. KELLY CO. 1811 No. Pitcher Street KALAMAZOO, MICH.

### ROTARY PRESSES

for Lithographers, Printers, and Newspaper Publishers. Also Presses for Folding Box Manufacturers.

Tell Us Your Requirements  
**WALTER SCOTT & CO., Plainfield, N. J.**



### THE BEST QUOIN For Every Purpose

Over 13,000,000 Sold  
**Samuel Stephens and Wickersham Quoin Company**  
174 Fort-Hill Square, Boston, Mass., U.S.A.

### ADIRONDACK BOND — for All Business Printing

**INTERNATIONAL PAPER COMPANY**  
220 East 42nd Street • New York, N. Y.  
BOSTON CHICAGO CLEVELAND

### BRONZERS

✓ The Milwaukee Flat-bed Bronzer is used with both flat-bed and offset presses. Sizes run from 19" to 75" also rebuilt machines. Guaranteed performance.  
**C. B. HENSCHEL MFG. CO. Milwaukee, Wisc.**

**LENGDAHL BINDERY**  
Edition Book Binders  
"Books Bound by Us Are Bound to Satisfy"  
1056 WEST VAN BUREN STREET  
CHICAGO, ILLINOIS Telephone Monroe 6062

**Masterline**  
PAPERS FOR PRINTERS  
• 8 BONDS—6 LEDGERS  
—3 ONION SKINS ALL  
VERY PRINTABLE ALL  
VERY SALABLE  
For Information Write  
**FOX RIVER PAPER CORP.**  
APPLETON, WISCONSIN



## **See It In NEW YORK at the NATIONAL GRAPHIC ARTS EXPOSITION**

The New Kluge Press sets the pace in the trend toward  
"Versatility plus Efficiency". The famous Kluge Efficiency is  
greatly improved and this New Press is more Versatile than  
you would have believed possible. See it in operation at the  
National Graphic Arts Exposition, September 25 to October 7.

**BRANDTJEN & KLUGE · INC.**  
MANUFACTURERS · SAINT PAUL, MINNESOTA

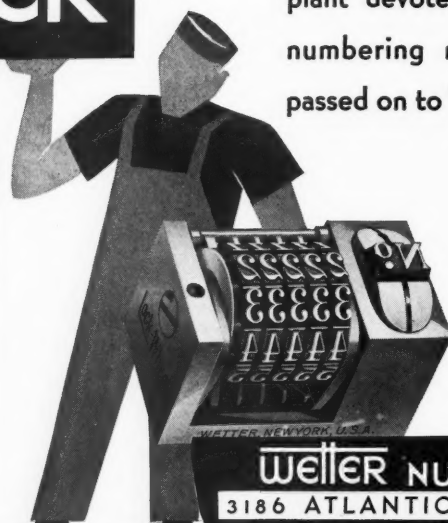
BRANCHES IN BOSTON · NEW YORK · PHILADELPHIA · CHICAGO · ATLANTA · DETROIT  
ST. LOUIS · SAN FRANCISCO · DALLAS · LOS ANGELES · MINNEAPOLIS · CANADA: SEARS, LTD.

*Please Mention The INLAND PRINTER When Writing to Advertisers*

113

**You never  
pay more for  
Wetter**

**Drop in  
and see  
Wetter  
at  
Graphic  
Arts  
Exhibit**



The benefit of cost reductions in Wetter machines, made possible by highly developed manufacturing methods and a modern plant devoted exclusively to typographic numbering machines, has always been passed on to Wetter customers.

You get all the exclusive Wetter advantages without extra cost.  
**YOU NEVER PAY MORE  
FOR A WETTER.**

**Wetter NUMBERING MACHINE CO.**

3186 ATLANTIC AVENUE, BROOKLYN, N. Y.

*Sold by all dealers and branches*

**AMERICAN TYPE FOUNDERS**

## **FOR SALE**

### **TWO-COLOR OFFSET PRESS**

54" Miehle (Single impression cylinder) with motor equipment and Dexter Feeder. Good condition. Can be seen in operation.

Write

**BOX S292**

**THE INLAND PRINTER**

**CAN YOU USE**  this rare combination  
of ART and technical PRINTING experience?

**ART DIRECTION:** Inland Printer readers know my work in design because I produced 8 IP covers during the past 14 months. As art director, I have planned and organized many direct mail and point-of-sale campaigns for large advertisers. **PRINTING PRODUCTION:** I am a practical printer with advanced technical training in operation of all types of letterpress and offset equipment. I know costs and have expert knowledge of engraving processes. **SALES CONTACT:** I have the experience and personal qualifications to serve as contact man on important accounts . . . University graduate, American, age 34, married. Past earnings average \$5,000 annually. Will consider lower salary with bonus for results. Will go anywhere, but prefer midwest. Please address: Box S 295, The Inland Printer.

## **COMMERCIAL ART**

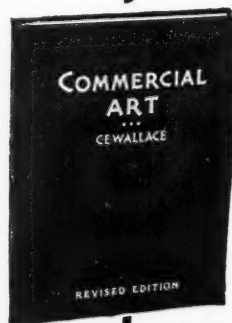
Revised  
Edition  
Postpaid

**\$3**

By C. E. Wallace

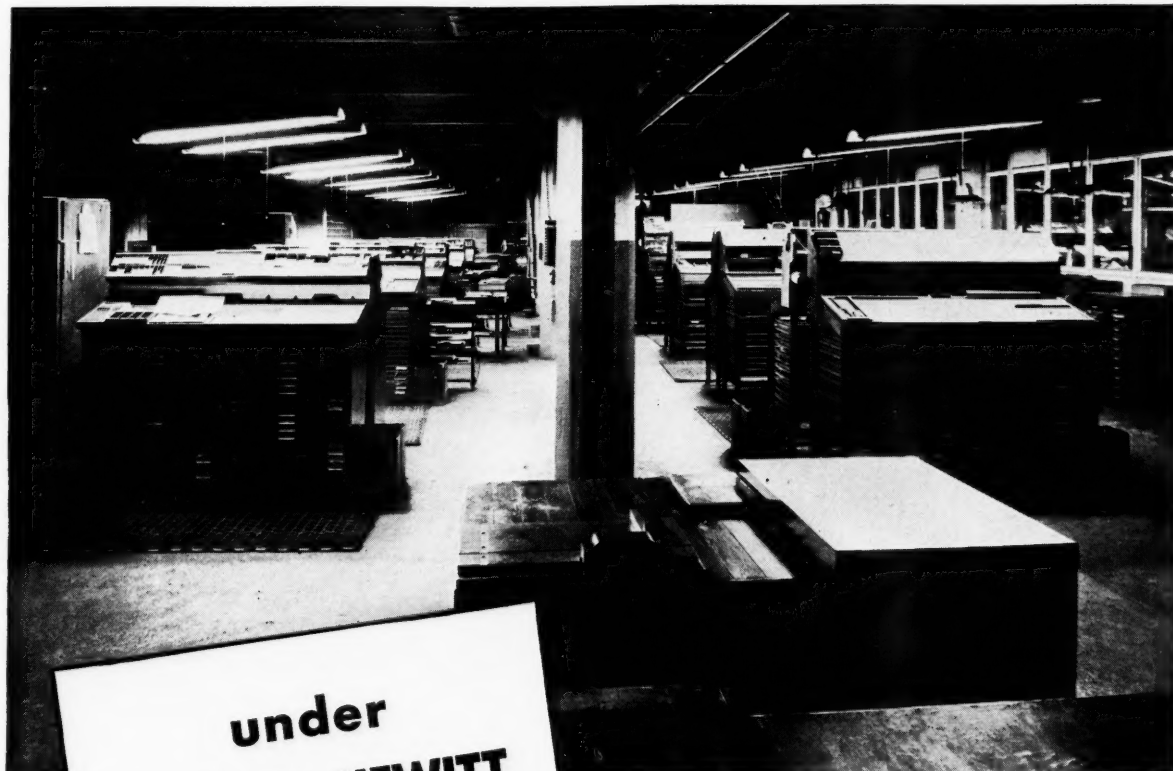
Basic principles of design; teaches fundamentals of composition and technique. 200 illustrations.

**THE INLAND PRINTER**





# 200 footcandles...WITHOUT GLARE



under  
**COOPER HEWITT**  
**"Mercurys"**



The long-tube Cooper Hewitt Mercury lamp makes it possible to obtain high levels of illumination without the presence of direct or reflected glare. In this composing room, an illumination level of approximately 200 footcandles is maintained on the working plane. Yet, the glareless, detail-revealing mercury light makes it possible to see "down into the type" with ease. In fact, one worker here reported that, "after working sixty days

under the new lighting, former headaches due to eye fatigue were eliminated entirely." » » » Modern Cooper Hewitt lighting costs less than ever before. Why not look into the profits obtainable with an "engineered" lighting system of Cooper Hewitt Mercury lamps? Our lighting engineers will be glad to give you complete information...write to General Electric Vapor Lamp Company, 817 Adams Street, Hoboken, New Jersey.

**GENERAL  ELECTRIC**  
**VAPOR LAMP COMPANY**  
974C

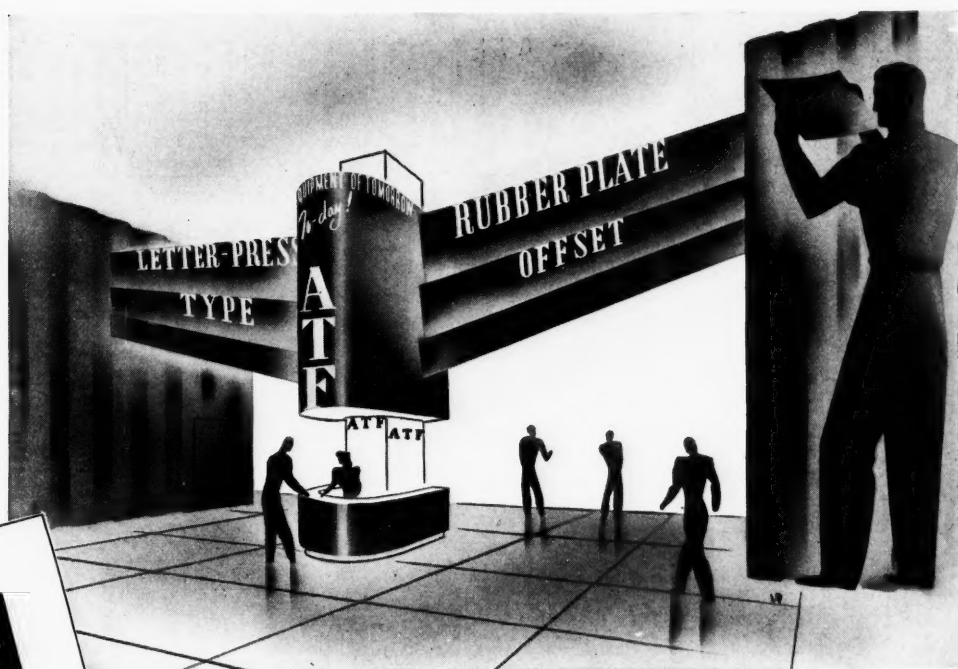
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"PRETTY SOFT FOR ME!"

★ "I used to buy our art work at one place, photographs another, retouching another, and engravings still another. I was so busy with details I didn't have time to think! But I've changed all that. Now I simply call in Superior. They handle everything—from start to finish."

SUPERIOR ENGRAVING COMPANY  
215 West Superior Street • Chicago, Illinois  
SUPERior 7070



**TURN  
RIGHT**

## for ATF's Exhibit of "Equipment of Tomorrow . . . Today!"

Turn right as you come into the Grand Central Palace. You can't miss it. The largest display at the show . . . 6000 square feet devoted to everything for the printer. See the latest type designs . . . demonstrations of the Kelly Clipper, 17x22, No. 1 and No. 2 Kellys. Inspect the new all-air operated Diafram Gun. See the Little Giant in operation . . . ATF Precision Rubber Plate Machine. Watch an 8-page tabloid newspaper being printed on the Webendorfer newspaper offset press . . . see the ATF Camera, complete dark room and plate making equipment. Make ATF's exhibit your headquarters at the show . . . meet your friends there.

**TURN  
RIGHT**

for

## American Type Founders

Branches and Selling Agents in Principal Cities

Letterpress Division: Elizabeth, New Jersey • Offset Division: Mt. Vernon, New York

Types used:  
Franklin Gothics  
and Lydian Family

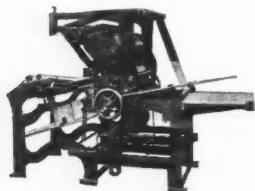
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117



# 'Halley' NUMBERING MACHINES

23"x23" size



Junior Labour Only Required.

For Numbering

BANK NOTES, CHEQUES, TREASURY NOTES AND ALL KINDS OF COMMERCIAL NUMERICAL WORK.

Automatic feeder, automatic mechanical check, pile delivery.

Rotary numbering, no wrong numbers, no waste sheets.

4,000 TO 5,000 CORRECTLY NUMBERED SHEETS PER HOUR.

Particulars from **JAMES HALLEY & SONS, LTD., SAMS LANE, WEST BROMWICH, ENG.**  
LONDON AREA: FRANCIS J. CONNOLLY, 4 BLACKFRIARS ROAD, S.E.1

## ROSBACK

Rotary Round Hole and Slot Hole Perforators, Hi-Pro Paper Drill, Gang Stitcher, and Vertical Perforators and Punching Machines.

**F. P. ROSBACK COMPANY**

*Largest Perforator Factory in the World*

BENTON HARBOR, MICHIGAN

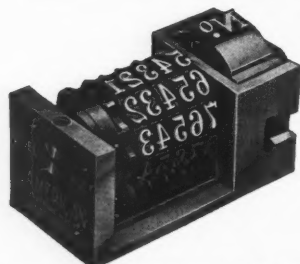


## HOLLISTON TAG-LABEL-SIGN CLOTHS

ALSO CLOTHS FOR

Office Forms, Factory Forms, Maps, Charts, Indexes, Catalog and Loose Leaf Pages, Instruction Manuals, Certificates, Licenses, Advertising Novelties, Etc. Write for Samples and Prices.

THE HOLLISTON MILLS, Inc., Dept. C5, Norwood, Mass.  
BOSTON NEW YORK PHILADELPHIA CHICAGO



**AMERICAN  
ALL STEEL  
STANDARD  
MODEL 63**

ROMAN  
**No 54321**  
GOTHIC  
**No 54321**

AT ALL BRANCHES AMERICAN TYPE FOUNDERS

**AMERICAN NUMBERING MACHINE CO.**

ATLANTIC AND SHEPHERD AVES., BROOKLYN, N. Y.  
BRANCH—103 WEST MADISON STREET, CHICAGO, ILL.

## REBUILT MACHINERY

GUARANTEED MACHINES FOR IMMEDIATE DELIVERY

CYLINDER  
PRESSES:

Two-color Miehle 56-

62-65-70.

Single color Miehles,

all sizes.

Babcock and Premiers.

No. 4 Miehle Auto-

matic Unit.

NOTE: Feeders and

extension deliveries

for above machines

if desired.

FIRST SEE IF  
**HOOD  
FALCO  
HAS  
IT**

CUTTERS, ETC.

Power Cutters—all

standard makes.

Cutters and Crassers.

Stitchers. Folders.

Patent Base.

AUTOMATICS  
AND FLATENS:

Miehle Verticals.

Style B and No. 2

Kellys.

Miehle Newspaper

Press, 4 page, 8 col.

10 x 15 and 12 x 18

Kluge and Miller

Units.

C. & P. Craftman

Automatic. Open

jobbers, all sizes.

Hood-Falco Corporation is the oldest and largest firm dealing exclusively in used and rebuilt printing equipment. Our reputation for fair dealing is based on thousands of satisfactory transactions.

**HOOD-FALCO CORPORATION**

New York Office: 225 VARICK ST., Tel. Walker 1554  
Chicago Office: 343 S. DEARBORN ST., Tel. Harrison 5643



## PRINTING IN THE AMERICAS

Found! A creditor's lot of brand new copies of this famous and authentic history of printing in this country. Really a rare opportunity to buy this valuable volume that formerly sold at \$7.50!

By JOHN CLYDE OSWALD

At a **\$2.50**  
Low Price

While a limited quantity remains.

THE INLAND PRINTER • Book Department

## Book form cards

that detach with perfect edges

Ask any of these paper merchants—or us—for samples and prices:

New York City

Richard C. Loesch Co.

Pittsburgh

Chatfield & Woods Co.

Cincinnati

The Chatfield Paper Co.

Detroit

Seaman-Patrick Paper Co.

Grand Rapids

Carpenter Paper Co.

Houston

L. S. Bosworth Co., Inc.

St. Louis

Tobey Fine Papers, Inc.

This specially prepared stock comes in all standard business card sizes in either loose or book form style. It is the highest grade rag content made at Crane mills.

Keep a supply constantly on hand for quick service to your customers, who need their business cards printed in this modern way.

The John B.

**WIGGIN**

1152 Fullerton Avenue

CHICAGO

Book Form Cards

Compact Binders



# CONVINCING

It is the duty of every business letter to convince. This accounts, in part, for the popularity of Correct Bond for letterheads. Correct Bond's air-dried cockle finish and crisp, rag-content quality create an air of authority, character and good taste that lends its subtle force to any message.

*On every Desk*  
*Correct Bond*

RAAG-CONTENT

FOR LETTERHEADS

THE AETNA PAPER COMPANY, DAYTON, OHIO

also manufacturers of Maxopaque—the All-Purpose Paper

*Be* **SAFE!** *Not* **SORRY!**



**Well Thumbed!** Vigilant proofreaders at Von Hoffmann Press, St. Louis, consulted the above dictionary on an average of 84 times a day for accuracy!  
**UP-TO-DATE PRINTING Demands the Use of THE NEW MERRIAM-WEBSTER**

Replace outworn, or outmoded, incomplete dictionaries with the "Supreme Authority." 20 years newer, it contains 122,000 more entries than any similar dictionary. Provides information in all branches of knowledge. The authority in courts, colleges, newspaper offices, and proofrooms. Prepared by 207 of the world's foremost experts. 600,000 entries; 3,350 pages; 12,000 terms illustrated. Ask us for illustrated leaflet to give you ALL the facts!



**G. & C. MERRIAM CO.,** 56 Broadway, Springfield, Mass.

## **RUBBER PRINTING PLATES**

*by "Process"*

**THE SOLUTION  
TO MANY PRINTING PROBLEMS**

☆ We operate the largest and most modern plant in the United States for the engraving and molding of plates for Letterpress and Anilin printing.

We also manufacture material for printers who engrave their own rubber plates.

*Write us about your problems*

**PROCESS RUBBER PLATE CO.**

522 South Clinton Street • Chicago

## **ROBERTSON EQUIPMENT**

**CAMERAS**

**LENSES**

**LIGHTS**

**SCREENS**

**ETCHING MACHINES**

**VACUUM FRAMES**

**PLATE WHIRLERS**

**TEMPERATURE CONTROLS**

**R. R. ROBERTSON**

**Daily News Building  
CHICAGO • ILLINOIS**



Redesigned, modernized, and streamlined, the NEW Rouse Band Saw **looks** as fast as it is --- capable of cutting a full galley of slugs to variable measures in 35 seconds.

The Rouse Band Saw is almost magical in performance. It will be demonstrated at the Graphic Arts Exhibition. If you cannot see it there, send for illustrated circular which describes its operation in detail. Your request for a circular does not obligate you in any way.

**H. B. ROUSE & CO.**

2218 North Wayne Avenue, Chicago, Illinois





# To The *Come Graphic Arts* Show

*See* The Printer's World of Tomorrow  
—the Latest BAUM Automatics . . . Profit Producers of Tomorrow!

—the BAUM . . . automatically folding, pasting, trimming, and *again* folding for mailing . . . all in *one* operation!

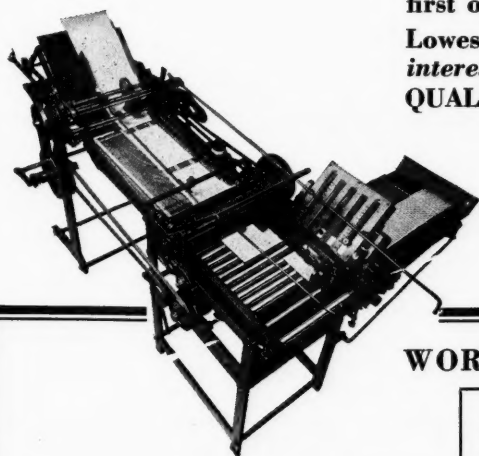
—the BAUM . . . automatically deckling, scoring, perforating, and cutting . . . all in *one* operation!

*Over 12,000 Baum Folders and Feeds*  
Saving Money Daily!

Our records show that parts bills average much less than \$1.00 per machine per year . . . proving the Automatic BAUM the best investment.

We do not know how long they will last because the first ones built twenty years ago are still running.

Lowest *first cost*! Lowest *depreciation*! Lowest *interest*! Lowest *upkeep* . . . but the HIGHEST QUALITY of FOLDING for a lifetime!



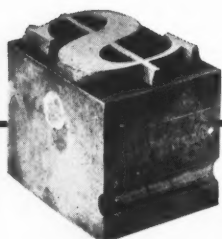
*Fastest Selling Folders*  
*in America*

WORLD'S GREATEST FOLDER VALUE

*Sales and Service*  
In Sixteen Principal Cities of U. S. A.

## RUSSELL ERNEST BAUM

615 CHESTNUT STREET • PHILADELPHIA, PA.

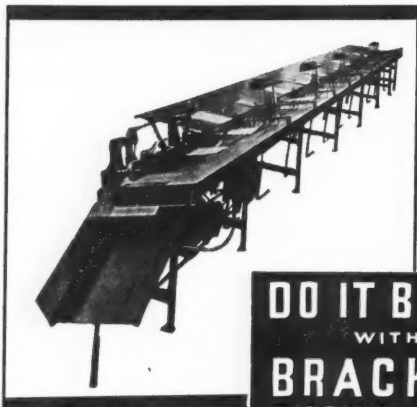


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International Correspondence Schools are the world's oldest, largest, best advertised home-study schools. In the 48 years of their existence, millions of dollars have been spent advertising their advantages to those who need them most. Every advertising medium has been used from lowly circular to newspaper, magazine, movie and radio. Out of that wealth of experience have come the famous I.C.S. Advertising Courses. More than 20,000 students have enrolled. Successful graduates have risen to the highest places in the advertising world. Advertising experts in every field have contributed to this perfect fund of advertising information. I.C.S.' 48 years of teaching experience brings it to your home.

Learn ADVERTISING the sure way — From a successful advertiser! • From 48 years' experience • From a 5,000,000-student School • From experts! • Write for free booklet.

**INTERNATIONAL CORRESPONDENCE SCHOOLS**  
BOX 7701, SCRANTON, PA.



**DO IT BETTER  
WITH A  
BRACKETT  
TIPPING MACHINE**

### CASH IN ON TODAY'S POPULAR FORMS

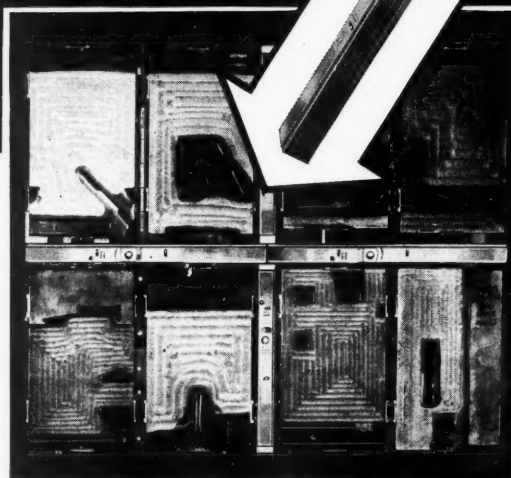
• The use of multi-carbon forms is growing by leaps and bounds! Equip your plant to cash in on the great demand that is sweeping the country. Get a BRACKETT SHEET FED TIPPING MACHINE. You'll land business with it. You'll make more money with it. It's the modern, up-to-the-minute method of assembling and pasting alternate carbons and printed forms. Cuts costs. Boosts profits!

**WRITE  
US  
TODAY  
!**

**THE BRACKETT STRIPPING  
MACHINE COMPANY**

608 S. Dearborn Street Chicago, Illinois  
330 W. 42nd Street New York, N. Y.

## A POINTER TO REAL LOCK-UP SPEED...



### CHALLENGE HI-SPEED QUOINS SAVE 70% TO 80% ON LOCK-UP

**W**HY waste time fumbling with an unwieldy series of 10 to 16 ordinary quoins when you can do the job with only four Challenge Hi-Speed Quoins and get a tight, accurate lock-up? For example, the illustration above shows the maximum form in a chase with just four Hi-Speed Quoins in the center margins.

And here's the rest of the story: each Challenge Hi-Speed Quoin self-locks with one turn of the key—can't slip . . . expansion is direct, powerful—registered exactly on the indicator dial, preserving register no matter how many times the form is unlocked for correction . . . locks absolutely square—always parallel—can be used in direct contact with form. No wood reglets required. No work-ups to cause troublesome delays.

The Challenge Hi-Speed Quoin is self-contained—handled as one unit—made of steel, cadmium plated. Closed width is 48 points, 60 points expanded. The Hi-Speed comes in six handy sizes—4½, 6, 7½, 9, 10½, and 12 inches. Write today for data.

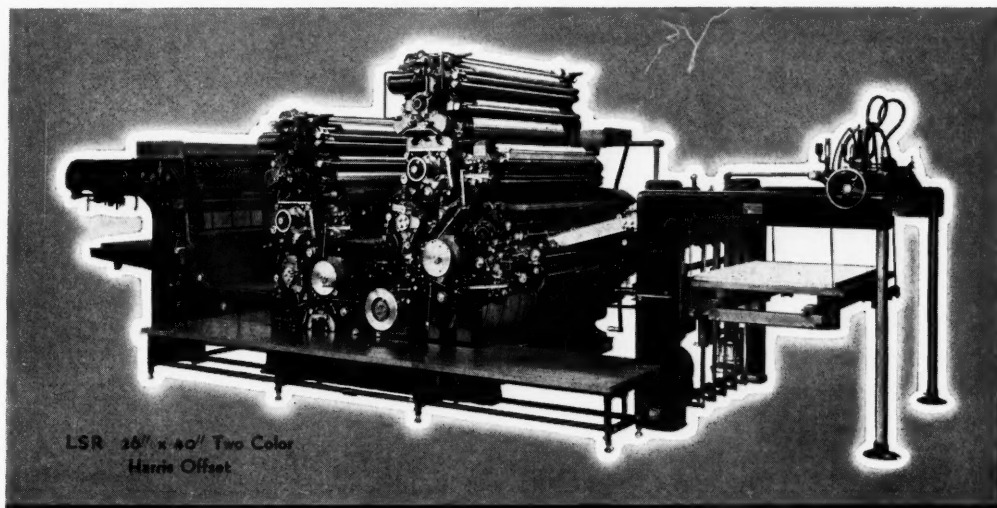
270

**★ THE CHALLENGE  
MACHINERY CO.**  
GRAND HAVEN, MICHIGAN  
CHICAGO NEW YORK

★ HARRIS PERFORMANCE THAT REFLECTS CRAFTSMANSHIP

*Emphatically*

**YOU DO PRODUCE QUALITY  
OFFSET ON A HARRIS . . .**



**L I T H O**  
*Chemicals*

Through research Harris has developed and standardized new chemicals for both deep etch and surface plate making processes. Full details upon request. Write us with reference to your lithographic problems.

*Pioneer  
Builders of  
Successful  
Offset  
Presses*

From the start, Harris Presses carry out the pressman's desire for quality. Harris performance anticipates the pressman's desire, and because its design and structure are the result of long experience in Offset Craftsmanship and engineering, the results are a fulfillment of pressroom plans. With Harris Presses you can — most emphatically — produce quality Offset.

**HARRIS SEYBOLD  
POTTER Company**

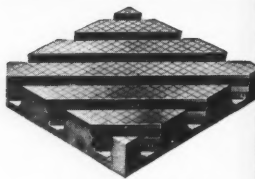
General Offices: 4510 East 71st Street, Cleveland, Ohio • Harris Sales Offices: New York, 330 West 42nd Street; Chicago, 343 South Dearborn Street; Dayton, 819 Washington Street; Atlanta, (Harris • Seybold • Potter Service Corp.) 120 Spring Street, N. W.; San Francisco, 420 Market Street • Factories: Cleveland, Dayton.

*Please Mention The INLAND PRINTER When Writing to Advertisers*

123



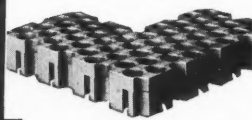
## ★ Make ready in HALF the TIME on flat bed PRESSES



A 50% saving in lock-up and make-ready time is not unusual where GENUINE PMC WARNOCK MALLEABLE IRON Bases are used on flat bed presses. This is because these bases are sturdy—dependable—accurate—assure precision register—and are built to give years of profitable service. Write for bulletin describing the complete system.

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To reduce printing costs on labels, cartons, seals and similar small plate jobs on flat bed presses—you need STERLING SEMI-STEEL TOGGLE BASES. This is substantiated by years of continuous service during which time they have retained their accuracy—and safeguarded precision register on thousands of complicated lock-up jobs. Write for bulletin giving the facts.



GRAPHIC ARTS EXPOSITION EXHIBITOR

BOOTH 212, New York, Sept. 25 to Oct. 7, 1939

**"WARNOCK"** 4 by 4 METAL BLOCKS **"STERLING"** TOGGLE BASES

**THE PRINTING MACHINERY CO.**  
436 COMMERCIAL SQUARE • CINCINNATI, OHIO

23 E. 26th Street, New York City

608 South Dearborn, Chicago

## Announcement

• All Lithographers, Typographers and Printers attending conventions in New York City are invited to visit

**BOOTHS 111 • 112 • 113 • 114**  
in the NATIONAL GRAPHIC ARTS  
EDUCATIONAL EXPOSITION

Open  
11 A. M. to  
10 P. M.

to see the latest improvements in  
Monotype Type-Setting and Type-  
Casting Machines and Monotype-  
Huebner Plate-Making Equipment  
for Lithography, Offset and  
Gravure Printing.

**Lanston Monotype Machine Company**

Twenty-fourth at Locust Street, Philadelphia, Pa.



## Zephyr BLACKS

*Timed to the Tempo of the*  
**MODERN Pressroom!**

Perfected in three grades, they are available for practically any job. But you must try them to fully appreciate their value; it is impossible to adequately describe them. You must see for yourself how they speed production . . . with safety and certainty.

They cost no more than ordinary inks and every plant should stock Zephyr Blacks for rush jobs. Write for descriptive folder.

**Sinclair & Valentine Co.**

MAIN OFFICE AND FACTORY

611 West 129th Street, New York, N. Y.

Albany  
Baltimore  
Birmingham  
Boston  
Chicago

Cleveland  
Dallas  
Dayton  
Havana  
Jacksonville

Kansas City  
Los Angeles  
Manila  
Nashville  
New Haven

New Orleans  
Philadelphia  
San Francisco  
Seattle

The Greatest Variety of  
Fine Printing Papers in  
The Middle West

HAMMERMILL . . . . STRATHMORE

CHAMPION . . JAPAN PAPER CO.

STANDARD PAPER MFG. CO.

LINWEAVE ASSOCIATION

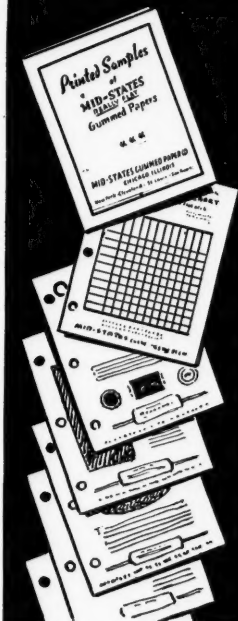
U. S. ENVELOPE CO.



**SWIGART PAPER CO.**

717 South Wells Street  
CHICAGO

# Of Course You're Interested In SUPERIOR RESULTS



PRINTING PROFITS accumulate from satisfied customers. You can please yourself and your most exacting customers when you use Mid-States **REALLY FLAT** Gummed Papers. Mid-States' line includes a paper for every printing requirement and a gumming for every purpose.

## NEW PORTFOLIO OF PRINTED SAMPLES

If you haven't received your copy, send for Mid-States' Portfolio of Printed Samples. Contains many printed samples of the popular grades of Mid-States **REALLY FLAT** Gummed Papers. Real proof that it can be done.

**POSTER STAMPS** are the new advertising medium of the day. In the space of a few years they have captured the imagination of the American Public and are now eagerly collected by hundreds of thousands of men, women, and children. Write for complete information on this new colorful, inexpensive, and education method of increasing the sales of your product or your customer's product.

## MID-STATES GUMMED PAPER CO.

2515 S. DAMEN AVE.

CHICAGO

NEW YORK

CLEVELAND

ST. LOUIS

SAN FRANCISCO

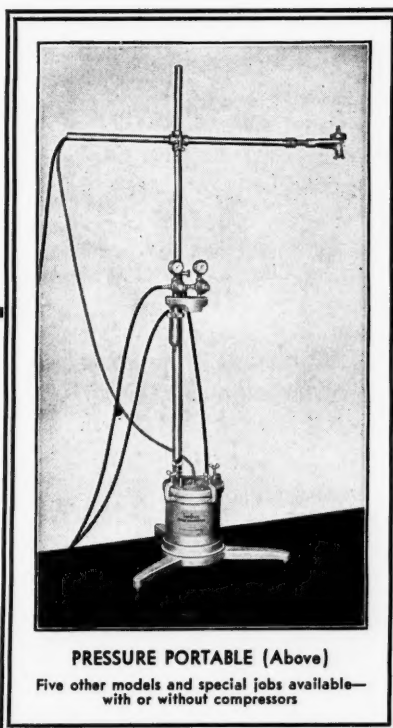
## SPRAYOMATIC Offset Eliminators are ALL AIR-OPERATED

### AIR-OPERATED

with

- New Type GUN
- New Type SWITCH
- FINGERTIP Control
- NO Wearing Parts

Specify kinds of presses—state whether or not you have your own air supply—Write for facts—to



PRESSURE PORTABLE (Above)

Five other models and special jobs available—  
with or without compressors

Do away with  
old-fashioned  
preventatives  
—they're costly

Do away with racking, slip-  
sheeting, ink-doping, slow  
speeds, and so on.

Eliminate all your troubles  
forever with the new and dif-  
ferent SPRAYOMATIC — the  
pioneer of portable offset  
eliminators.

Keep pace with Trends!  
Write now for full details.

THE SPRAYOMATIC PRODUCTS COMPANY

1120 Harrison Avenue  
Cincinnati, Ohio

# Maxwell



Watermarked MAXWELL BOND is preferred by printer and user alike for low cost stationery and business printing.

**THE MAXWELL PAPER COMPANY,**

## PROFIT BY EXPERIENCE!

*Experience*—For nearly fifty years we have helped our customers solve their bookbinding problems. May we help solve yours? Make *profitable* use of these facilities.

*Quality*—Expert Craftsmanship, Selected Materials, and Extra Care in every binding detail, will *guarantee your satisfaction*.

*Service*—Fast service with our daily capacity of 40,000 case bound books assures you of *prompt delivery*.

*Economy*—Our modern automatic equipment gives you case binding at the *lowest possible cost*.

*Cooperation*—Prompt attention will be given to your binding information. *Without charge* we will gladly submit Dummies, Recommendations and Estimates.



**BROCK & RANKIN**

619 SOUTH LA SALLE STREET

CHICAGO

**HIGH SPEED**

## Raised Printing

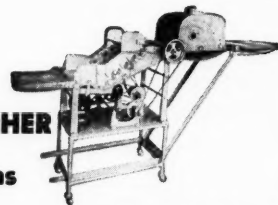
**Hard, Flexible, Permanent Effects**

**Model No. O**

**"CASCADE"**

**AUTOMATIC  
EMBOSSOGRAPHER**

**\$550 Easy Terms**



- Simple and foolproof! • Purchasers delighted!
- Hand Machines \$90 up • Great Variety of Compounds and Inks



Quick delivery now—Write for more data.

## EMBOSSOGRAPH

PROCESS CO., Inc., 251 Williams St., New York City





☆☆ Tub-Sized MAXWELL OFFSET is the nation's leading offset paper for modern, business-producing sales literature.

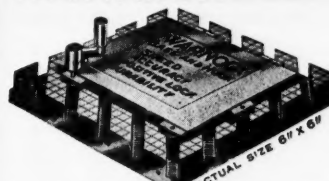
**FRANKLIN, OHIO** Also Manufacturers of Maxwell Mimeograph

# Insist on W. S. **WARNOCK** **BASE** and Quoins

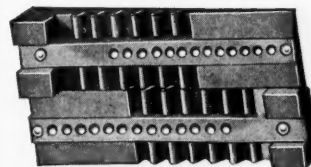
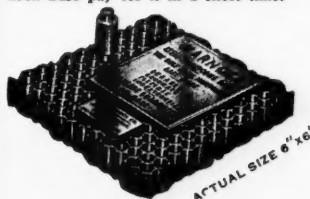
We'll Welcome You  
At Our Booths  
Nos. 244 and 258A



## W. S. Warnock Base



Speed up layout! Savings from use of Warnock Base pay for it in a short time.



Positive, self-locking quoin—Thousands in use. Two sizes: No. 1—3 inches, No. 2—4 inches. Send now for catalog.

**W. S. WARNOCK CO.**  
1524 Jonquil Terrace, **CHICAGO, ILL.**  
Tel. Hollycourt 3344

# The Inland Printer

J. L. FRAZIER, Manager

Published Monthly by The Inland Printer Company  
205 W. Wacker Drive, Chicago, Illinois, U. S. A.

Volume 103 • September, 1939 • Number 6

THE INLAND PRINTER is published on the first of every month. It furnishes the most reliable and significant information on matters concerning the printing and allied industries. Contributions are solicited but should be concisely stated and presented in typewritten manuscript.

## SUBSCRIPTION RATES

Two years, \$7.00; one year, \$4.00; payable always in advance. Sample copies, \$0.40; none free. Make all remittances payable to The Inland Printer Company.

When Subscriptions Expire the magazine is discontinued unless a renewal is received prior to the publication of the following issue. Subscribers should avoid possible delay by remitting promptly.

Foreign Subscriptions—To Canada, \$4.50, postage prepaid; to countries within the postal union, \$5.00 a year in advance postage prepaid. Make foreign money orders payable to The Inland Printer Company. Foreign postage stamps are not accepted.

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Wm. Dawson & Sons, Cannon House Pilgrim Street, Ludgate Circus, London, E. C., England.

Alex. Cowan & Sons (Limited), General Agents, Melbourne, Sydney, and Adelaide, Australia.

F. T. Wimble & Co., 35-43 Clarence Street, Sydney, Australia.

John Dickinson & Co. (Limited), Cape Town, Durban and Johannesburg, South Africa.

Benjamin N. Fryer, c/o Newspaper News, Warwick Building, Hamilton Street, Sydney, N. S. W. Australia.

Akateeminen Kirjakauppa, Helsinki, Finland.

Acme Agency, Casilla Correo 1136, Buenos Aires, Argentina.

Maruzen Co., Ltd., 6 Niho, Tokyo, Japan.

ORBIS, P. O. Box 240, Praha, Czechoslovakia.

Harry S. Tomita, P. O. Box 1230, Honolulu, Territory Hawaii.

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Reg. U. S. Pat. Off. No. 314445.

Write on your company letterhead for sample, prices and full information.  
TI-PI COMPANY, 708 E. 18TH STREET, KANSAS CITY, MO.

**RUBBER**  
PRINTING PLATES  
AND CUTTING TOOLS  
Make your own tint plates  
—Print perfectly on all  
presses—with all inks on  
all papers.

**MEGILL'S** Spring Tongue  
Patent GAUGE PINS



QUICK ON . . . The universally popular Gauge Pin. \$1.80 dozen, 50c set of 3.

Reg. U. S. Pat. Office

**MEGILL'S GAUGE PINS**

FOR JOB  
PRESSES

Insist on Megill's Gauges, Gauge Pins, Grip-  
per Fingers, etc. The original—and the best.  
Circular on request.

**THE EDWARD L. MEGILL COMPANY**  
The Pioneer in 1870

763 Atlantic Avenue  
Brooklyn, New York

**MEGILL'S** Double Grip  
Patent GAUGES



WISE GRIP . . . adjustable . . . used  
for any stock. \$1.75 set of 3.

## WANT ADVERTISEMENTS

Prices for this department: Under the heading "Situation Wanted," 50 cents per line; minimum \$1.00. Under all other headings, price 75 cents per line; minimum, \$1.50. Count ten words to the line, address to be counted. Price the same whether one or more insertions are taken. Cash must accompany order.

## ADVERTISING—HOME STUDY

THE ADVERTISING MINDED pressman and printer is qualified to make the most money. Many have graduated from this long established school. Send for free booklet outlining home study course and requirements. PAGE-DAVIS SCHOOL OF ADVERTISING, 3601 Michigan Ave., Dept. 950C, Chicago.

## INSTRUCTION

PEOPLE FROM ALASKA, California, Washington, Florida, Seattle, Honolulu, and all America attend Bennett's School to learn his method of operating; his record is 12,130 ems for eight hours; established 1912; both practical and home instruction. Free catalog. BENNETT'S SCHOOL, Maumee, Ohio.

## BUSINESS OPPORTUNITIES

OWNER RETIRING — OFFERS FOR SALE — COMPLETE PRINTING AND PUBLISHING PLANT, FULLY EQUIPPED, consisting of Automatic jobbers, Vertical, #2 Kelly Automatic, Miehle Cylinders hand and automatic, Hoe Straightline complete with stereotype equipment, Monotype Equipment, One Model 14 and Two Model 8 Linotype Machines, 34" and 44" Seybold Automatic Clamp Power cutters, Style B Cleveland Automatic Folding Machine, Stitchers, punch, perforators, all in first class condition, type, cabinets, iron top imposing stones, and other miscellaneous equipment. Will sell as a whole or any part. Send for detailed list or call in person and inspect—machinery can be seen in operation. Convenient terms to responsible parties. OWNER, 232 Luckie St., N. W., Atlanta, Ga. Jackson 3428.

PRINTING BUSINESS AT SACRIFICE—Nine-year commercial estab., 3 automatic jobs-cylinder; power-operated cutter, stitcher, and perforator; drill. Doing fair business, city in Oklahoma—low overhead. Several other business connections reason for selling. \$5,000.00. Terms. S 274.

KEEP YOUR PLANT BUSY! We furnish 40 Profit-Making, Tried and Tested Printing Plans prepaid for \$1.00. Satisfaction guaranteed. Advertising Course \$1.00. Also 50 Mail-Order Plans for \$1.00. ASSOCIATED MANAGEMENT, 5120-IP Oakland Street, Philadelphia, Pa.

## WANTED TO PURCHASE

INFORMATION AND DATA wanted pertaining to small job printing shops of the 1800 Period. Wish to purchase small amount of equipment used in such a shop. Give complete details. Ernest W. Hall, Sturbridge, Massachusetts.

## FOR SALE

Five used New Era Presses; 3 size 13" x 28" and 2 size 13" x 20". Printing from one to three colors, on top and also on both sides of web; with numerous attachments; all complete and in A-1 condition; can be seen in operation. For further particulars address S 287.

**CLIP  
THIS AD**

FOR FREE TRIAL SHEETS  
STATE PRESS  
AND SIZE WANTED

**RIEDEL'S CERTIFINE  
TYMPAN**

A low-priced tympan  
with a hard even sur-  
face and exceptional  
strength. Ideal for short-

run job work. Nationally  
stocked in roll widths  
for every press.

RIEDEL PAPER CORPORATION 342 MADISON AVENUE NEW YORK, N. Y.

SEPTEMBER SAVINGS in used and new equipment, supplies listed in the new Reference Sheet. Bargains for printers and publishers. Get your copy now by writing to Section I, Classified Dept., Editor & Publisher, Times Building, New York City.

12" x 16", 12" x 26" and 15" x 20" two color Kidder Roll Feed, Bed and Platen Presses, with slitting and cut-off attachments. Good condition; immediate delivery. For further particulars address S 287.

BOOKBINDERS' MACHINERY—New model National book sewing machines; also rebuilt machines. Write for particulars. JOSEPH E. SMYTH CO., 720 S. Dearborn St., Chicago.

See our ad—look up Buyers' Guide in index now. W. L. Moore, 4835 Woodward Avenue, Detroit, Michigan.

FOR SALE—40 inch Dayton cutter; rebuilt and fully guaranteed. \$5.

#### SITUATIONS WANTED

##### Executives and Managers

PLANT MANAGER — PRACTICAL EXECUTIVE, ABOVE AVERAGE wants to use ability and experience to greater advantage. Now in charge of all departments in large eastern printing and lithography plant operating day and night. Qualified by extensive experience to establish new departments, move plants or reorganize personnel methodically. Additional facts cheerfully sent in confidence. Medium to large concerns preferred. Location secondary to co-operative environment. Salary in proportion to responsibility. Will consider applying a percentage towards a personal interest in concern. PRINTING COUNSELLOR, S 262.

PRODUCTION SUPT. 45, Christian, with large plant in East doing offset & printing. Excellent record, competent in all depts., desires change, partial to N. E., will go any place where ability is desired. Understands costs, production of continuous forms. Prefer plant doing around \$500,000 yearly bus. but open to any proposition. S 294.

ASSISTANT TO MANAGER AND ESTIMATOR. Experience: 5 years as estimator and production supervisor; 4½ years printer, linotype operator. College graduate; single; age 30. References as to character, habits and ability. Paul H. Beveridge, 316 S. Ninth St., Monmouth, Illinois.

PRODUCTION MAN—superintendent, estimator, customer contact, buyer, a practical printer with 25 years' experience. University graduate, 41; desires permanent connection, will go anywhere. If you want a high type man of ability who will fit into your organization, write S 277.

SUPERINTENDENT, PRODUCTION MANAGER, many years experience in letterpress, advertising typography, layout, estimating and cost finding, with exceptional background, age 40 seeks position with progressive firm. S 293.

EXECUTIVE—to manage business, production, or both. Exp. Catalog, book or publication printing. S 987.

COMPOSING ROOM FOREMAN experienced in high grade printing. Capable executive. S 267.

##### Composing Room

AMBITIOUS UNION OPERATOR — averages 5,000 ems an hour, straight matter. Enough floor exper. to know that end. 6 yrs. mach. exp., gen. personal qualif. will enable me to make good, grow with larger responsib. 24; single; sober; anywhere. Hill, 230 W. 4th, Mt. Carmel, Ill.

OLD-TIMER—floorman, estimator and layout to lockup; create modernistic typography; unusually active, useful man for medium-sized shop; meet public, worth knowing; experienced shop foreman; don't have to be told twice. East or South East. Union. S 276.

COMPETENT OPERATOR with unusual, varied exper. in govt. plant, private plant, publishing house, with Mergenthaler Linotype Co., daily newspapers. Sober, steady, reliable. Operator, 1755 Faxon Ave., Memphis, Tenn.

PRINTER—jobs, news, color, books, mono, cat., mag., ludlow, rule forms, lockup; 29; 1030 Grand, Wis. Rapids, Wis.

LOCKUP-LINEUP OK man. Capable, all classes printing. Address S 268, The Inland Printer.

#### STEWART'S EMBOSSEING BOARD

##### Makes Embossing Easy

Needs no heating or melting—Simply wet it, attach it to tympan and let press run until dry. Sheets 5¼ x 9½ inches \$1.25 a dozen, postpaid.

Instruction with each package.

#### THE INLAND PRINTER COMPANY

205 W. Wacker Drive, Chicago, Illinois

#### DON'T SACRIFICE YOUR OLD CUTTER MODERNIZE IT ECONOMICALLY WITH A POWER GAUGE

Moves the gauge back and forth by power!  
Write to POWER GAUGES, 304 HUDSON ST., N. Y. C.

## Keeping in Touch

**COAST TO COAST**—The sun never sets on our Vaporin ink, although out in California the SUNSET magazine is a Vaporin customer. This is the oldest magazine on the Coast, but it is produced by the



most up-to-the-minute methods at the Coast Printing Corporation, Palo Alto. We know the 250,000 readers of SUNSET appreciate the clean, sharp printing which Vaporin helps to make possible. And printers appreciate the fact that these finer printing results are achieved at much faster press speeds. The greatest testimony to the success of Vaporin is its ever-widening acceptance—

from Greenwich, Conn., to Palo Alto, Calif., more than 200 magazines are being Vaporin-printed.

*Pleasant Thought: Just think of all the election literature you'll be printing a year from now.*

**CONVENTION DAZE**—The World's Largest collection of printers and printing supply men will be assembled in New York between September 24 and October 3, when no less than nine important organizations connected with the Graphic Arts will convene in this World's Fair city. Most of the visitors will see the Fifth National Graphic Arts Exposition at the Grand Central Palace. When you go to this tremendous show, don't fail to drop in at the Ink Association exhibit!

Features there include a color movie on ink making, chairs to relieve the load on tired feet, and hostesses. No one will try to sell you a pound of ink, since the exhibit is a cooperative venture with all ink manufacturers contributing to its support. Therefore, no individual horns can be tooted. Of course, if you'd like details on some particular brand, just drop us a line and we'd be glad to furnish full information.



*The new broadcasting code bars matrimonial bureau advertising via the radio. Too bad. With television coming in, they could really display the products to advantage.*

**CANADIAN NEWS**—From one of our correspondents in the land of the maple leaf, we have received an excellent example of how gloss inks may be used in place of an overprint varnish. The job is a brochure done for the De Laval Company, Limited, with a solid blue cover, over-printed with red. Both the blue and the red have a brilliant gloss, and the effect is one that should make Dominion printers proud of their craftsmanship. As you may have suspected, IPI Glo-Ray gloss inks were used. In the United States or Canada, or for that matter, in New Zealand, IPI Glo-Ray inks can help you achieve beautiful gloss printing effects. The next time you have some labels or a brochure which you want to make particularly attractive, try Glo-Ray inks!

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A ready reference buyers can depend upon for sources of supply. Manufacturers: This Business Directory offers good

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ANY DRAWING, MAXIMUM TIME 2 HOURS  
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 ZINC CUT, MAXIMUM SIZE 4 50. INCHES CHICAGO

## Bookkeeping Systems, Printing Schedules

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## Books

BOOKS on all engraving and printing processes, offset, art, photography, silk screen, block cutting, etc. Size and screen finders and other helps. List free. Commercial Engraving Publishing Co., 34-V North Ritter Ave., Indianapolis, Indiana.

## Bronzing Machines

MILWAUKEE BRONZERS—for all presses. Also some rebuilt units. Write C. B. Henschel Mfg. Co., Milwaukee, Wisconsin.

## Calendars and Calendar Pads

**1940**  
**CALENDAR**  
**PADS**

IN SIZES from 1x1½ up to 10½x22, in black and white, India tint, red and black, red and blue, brown and white, maroon and brown, reverse blue; fish pads, 3-months-at-a-glance pads, gold cover pads. Write for catalog.

**GOES**  
**LITHOGRAPHING COMPANY**  
 35 W. 61st St., Chicago 53K Park Pl., N. Y.

CALENDAR PADS—BLOTTERS. 1940 Calendar Pad Catalog now ready. Over 70 different sizes and styles. A pad for every purpose. Also our new Art Advertising Blotter Catalog illustrated in full color. Write for catalog in which you are interested. Joseph Hoover & Sons Co., Market and 49th Sts., Philadelphia, Pa.

THE SULLIVAN PRINTING WORKS COMPANY, 1062 Gilbert Avenue, Cincinnati, Ohio. Calendar pads now ready for shipment; the best and cheapest on the market; write for sample books and prices.

WHOLESALE CALENDARS to printers. Do your own imprinting. Advertising Novelties, Fans, Book Matches. Write for particulars. Fleming Calendar Co., 6540 Cottage Grove Ave., Chicago, Ill.

## Camera Bellows

UNITED CAMERA CO., INC., Bellows made to order for all types of photoengravers' cameras. 1515 Belmont Ave., Chicago, Ill.

## Card Cases

WITH YOUR AD, 3c. BUILD BUSINESS. De Luxe levant grain. Samples 10c. Schramm, 113 S. Louise, Glendale, Cal.

## Christmas Cards—Photographic

Cards from customer's picture; can imprint. \$5 up for 100; good discount. BROWN ART CO., Schenectady, N. Y.

## Commencement Invitations

COMMENCEMENT INVITATIONS and other engraved stationery. Samples with discount to printers. Siegrist Engraving Co., 924 Oak St., Kansas City, Mo.

## County Record Books

County Record Books, Ruling, Binding. Get your share of this business,—good prices, liberal discounts to printers. Tom L. Ketchings Co., Natchez, Miss.

## Electric Motors

CLINE ELECTRIC MFG. CO., Cline-Westinghouse Motor and control equipment for printing machinery. 211 West Wacker Dr., Chicago, Ill.

## Electrotypers'—Stereotypers' Machinery

THE OSTRANDER-SEYMOUR CO., general offices, 1874 S. 54th Avenue, Cicero, Chicago, Ill.; Eastern Office, 135 E. 42nd St., New York.

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Address.....

Insert copy.....times starting.....

☐ as Display Ad in.....inch space.

☐ as Reading Notice in.....lines.

Classify under.....heading.

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THE OSTRANDER-SEYMOUR CO., general offices, 1874 S. 54th Avenue, Cicero, Chicago, Ill.; Eastern Office, 135 E. 42nd St., New York.

TASOPE—AURORA, MISSOURI. Manufacturers of modern photoengraving equipment. Catalog furnished on request.

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DUPLEX PRINTING PRESS CO., stereo-type rotary presses, stereo and mat-making machinery, flat-bed presses, Battle Creek, Mich.

## Printers' Supplies

SUPER-SOLVENT the new marvelous type and roller cleaner. Samples. Perfection Products Co., Est. 1924, 116 Earl St., Rochester, N. Y.

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vure presses "Palatia." Plants installed  
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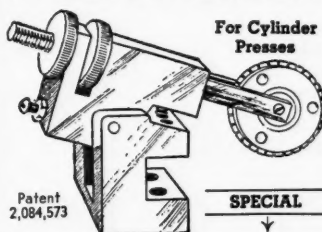


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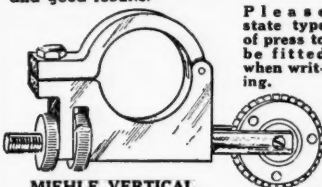


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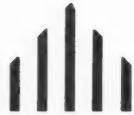
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# THE INLAND PRINTER

The Leading Business and Technical Journal of  
the World in the Printing and Allied Industries

J. L. FRAZIER, *Editor*

— — SEPTEMBER, 1939 — —

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**Western Advertising:** William R. Joyce, 205 West Wacker Drive, Chicago

**Eastern Advertising:** John E. Allen, at 522 Fifth Avenue, New York City

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